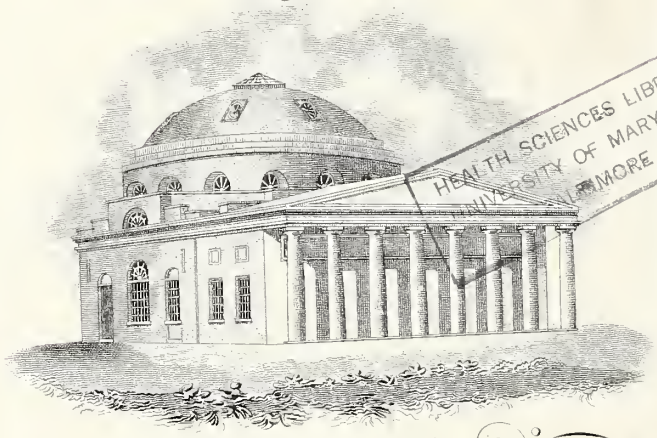
LIBRARY
OF THE
School of Medicine



HEALTH SCIENCES LIBRARY
UNIVERSITY OF MARYLAND
BALTIMORE

University of Maryland

Digitized by the Internet Archive
in 2016

https://archive.org/details/journalofindiana3411indi

THE JOURNAL OF THE Indiana State Medical Association

VOLUME 34
NUMBER 1

INDIANAPOLIS, INDIANA, JANUARY, 1941

Per Year, $3.50
Single Copy, 50 cents

Contents

ORIGINAL ARTICLES

Prognosis and Treatment in Peptic Ulcer. Charles A. Flood, M.D., New York, N. Y. 1
New Sulfanilamide Derivatives and Their Mode of Action. Ralph R. Mellon, M.D., Pittsburgh 8
Indications for Cesarean Section. Nicholson J. Eastman, M.D., Baltimore, Md. 14
Meningioma of Choroid Plexus. Case Report. R. Dean Woolsey, M.D., and Roland M. Klemme, M.D., St. Louis, Mo. 18
Paroxysmal Auricular Tachycardia Complicating Pregnancy. J. S. Browning, M.D., and C. J. Clark, M.D., Indianapolis 21
Sedimentation Rate of Red Blood Cells: A Simple Office Procedure. Gordon B. Wilder, M.D., Anderson 24
Pain in the Feet. Parvin M. Davis, M.D., New Albany 27

EDITORIALS

Hoosier Politics 31
Extra Driving Hazards in Winter 32
Economics for the Future 32
William A. Spurgeon 33
The Crum Case 33
Editorial Notes 34

SPECIAL ARTICLES

Twenty-Five Years Ago 38
Secretaries' Conference 39
President's Page 40
National Foundation for Infantile Paralysis, Inc. 41
Some Observations on the Medical Care of the Indigent (Leffel) 42
Dr. Abell's Comments on Medical Preparedness 44
Under the Capitol Dome 45

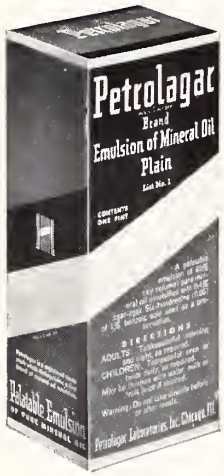
MISCELLANEOUS

Deaths 46
News Notes 47
Indiana University News Notes 49
Society Reports 51
Local Societies—Officers 51
Local Societies—Meetings 52
Executive Committee, Indiana State Medical Association 55
Woman's Auxiliary xxii
Thirteenth District Medical Society xxvi
Books 51

SECRETARIES' CONFERENCE PROGRAM—PAGE 39

Entered as Second Class Matter, January 25, 1933, at the Postoffice at Indianapolis, Indiana, under the Act of Congress of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized October 18, 1918. Copyrighted 1941 by The Indiana State Medical Association.

Petrolagar*. . *for the Treatment of Constipation*



• Petrolagar Plain, is a bland emulsion of high grade mineral oil. It helps to soften the feces and promotes the formation of an easily passed stool.

Petrolagar Plain helps maintain regular bowel movement without the use of harsh laxatives.

Suggested dosage:

Adults—Tablespoonful morning and night as required

Children—Teaspoonful once or twice daily as required

**Petrolagar—The trademark of Petrolagar Laboratories, Inc., brand emulsion of mineral oil . . . Liquid petrolatum 65 cc. emulsified with 0.4 gm. agar in menstruum to make 100 cc.*

Petrolagar Laboratories, Inc. • 8134 McCormick Boulevard • Chicago, Illinois

26831

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 JANUARY, 1941 NUMBER 1

PROGNOSIS AND TREATMENT IN PEPTIC ULCER*†

CHARLES A. FLOOD, M.D.

NEW YORK, N. Y.

The principal material to be reported in this paper has been obtained in the Ulcer Follow-up Clinic of the Presbyterian Hospital in New York City where a study of the results of medical and surgical treatment in ulcer has been in progress for a number of years. The location of this clinic in a metropolitan area has afforded an opportunity of following a large number of patients with ulcer over a period of years and of examining these patients at frequent intervals in order to appraise the effects of treatment. As a result of this study, a considerable amount of information has been accumulated about the natural history of peptic ulcer, and data concerning the results of the various forms of medical and surgical therapy has been obtained.

The Ulcer Follow-up Clinic is composed of members of both the medical and surgical staffs interested in this disease and who meet in the clinic two mornings each month. The patients under observation include most of the surgically treated cases of peptic ulcer who have been operated on at the Presbyterian Hospital since 1916. The medically treated cases constitute a smaller group which has been accumulated during the past eight years, selected more or less at random from the very large number of patients with peptic ulcer who are medically treated in the clinic and hospital. The total number of patients under observation in the ulcer clinic is over 700, of whom somewhat more than half have been surgically treated.

Patients in the ulcer clinic are never discharged even though they remain free from symptoms. They return to the clinic at intervals of every three to twelve months unless recurrent symptoms make more frequent visits necessary. At each clinic visit, a careful inquiry is made concerning any symptoms which may have been present at any time since the preceding visit, and the diet and medications are checked. Frequent contact in this way with the patient makes it possible for the physician to become familiar with his habits and worries, and thus some insight is obtained into the emotional factors which often seem to play a role in causing a recurrence of gastrointestinal symptoms.

The treatment of peptic ulcer is still based largely on empirical observation and until more is known of the etiology of this disease, any improvement in therapy must probably come through trial and error. There are certain aspects of the medical treatment of ulcer which are based, at least in part, upon experimental physiological data. From our present knowledge of the disease, the most important of these principles appear to be the regulation of gastric acidity, and the elimination in so far as possible of injurious psychic influences. Something is known as to the mechanism whereby these factors, particularly high gastric acidity and neurogenic influences, operate either in producing or preventing the healing of ulcer, although our knowledge still remains quite incomplete.

The importance of hyperacidity in ulcer has been shown in numerous ways. Many experiments have shown, for example, that hydrochloric acid will delay the healing of an ulcer in the stomach of the experimental animal. The higher the concentration of hydrochloric acid, the slower is the healing of the stomach in animals. Similarly, a delay in the healing of experimental ulcers may be obtained by repeated injections of histamine which causes a hypersecretion of hydrochloric acid by the stomach. The importance of hydrochloric acid in the etiology of peptic ulcer is also suggested by numerous other experiments, including surgical duodenal drainage

* Presented before the first General Meeting of the Indiana State Medical Association at the French Lick session, October 30, 1940.

† From The Department of Medicine of the College of Physicians and Surgeons, Columbia University and the Presbyterian Hospital in New York.

whereby ulcers may be produced in animals by diverting the alkaline contents of the duodenum to the lower part of the intestinal tract and thus removing one of the important mechanisms which reduce gastric acidity.

Clinically, the importance of gastric acidity in peptic ulcer is suggested by the fact that hyperacidity is found in most cases of duodenal ulcer and also by the fact that ulcer almost never occurs in individuals with anacidity. Palmer has recently shown that even those rare individuals with peptic ulcer who show an absence of free hydrochloric acid on one examination will be found to secrete free acid if repeated daily tests are carried out. Clinical observation thus supports the acid theory of the causation of ulcer. It also suggests, however, that hyperacidity is not the complete explanation for the disease inasmuch as many individuals are seen with hyperacidity who never suffer from ulcer and other individuals who have ulcer are found who always have normal or even low acid values in the gastric contents. It is apparent, therefore, that other factors also play a role in the causation of this disease.

Observation of patients with peptic ulcer also suggests the importance of psychic factors in the causation of ulcer and more emphasis is continually being placed on the possibility of a psychogenic mechanism as the basis for the formation of ulcers. The typical patient with ulcer is nervous, high-strung and worrisome; unexpected incidents and misfortunes often give rise to a train of symptoms both emotional and physical and are often found to be antecedent to a recurrence of ulcer symptoms. In a study of 200 patients with recurrence of ulcer symptoms, observed in the Follow-up Clinic, worry and fatigue were found to be the commonest precipitating factors preceding the recurrence of symptoms. Evidence of unusual anxiety or fatigue was found in about 40 per cent of the cases, preceding the onset of symptoms. Economic insecurity has been the most frequent source of worry in the patients in our clinic. This is illustrated in the following cases who have been under observation in the clinic for a number of years.

Case No. 1. Patient G. H., P.H. Unit No. 433458 —a 34-year-old elevator operator, was first seen in the Presbyterian Hospital in October, 1934, when he was admitted for a severe gastrointestinal hemorrhage. He gave a history at this time of intermittent indigestion since the age of 16 years. X-ray examination carried out after recovery from the bleeding showed evidence of a duodenal ulcer without obstruction. On bed rest, diet and alkalies the patient made an uneventful recovery. Inquiry revealed a background of continuous economic insecurity and financial worry. Immediately before the hemorrhage, the patient had reason to fear that he would lose his job. After discharge from the hospital the patient followed an ambulatory ulcer type of diet and remained well for eleven months. He then suddenly had another hemorrhage necessitating hospital admission. On this second admission it was found that the patient had been trying to carry on a continuous night job of 13 hours' duration and had become exhausted by the demands of this position.

After recovery from the second episode, he remained well for four months. The patient's wife then had an altercation with his sister and drove her from his house. Immediately following this the patient developed a third gastrointestinal hemorrhage.

For the following nine months the patient remained well. During this period he did not work and was on Home Relief. He then was offered an opportunity of returning to his old job as an elevator operator. Twenty-four hours before he was expected to return to this post he had another episode of tarry stools and was readmitted to the hospital for treatment.

Since the fourth hospital admission the patient has remained fairly free from gastrointestinal symptoms except for one mild episode of tarry stools. It has been four years since the last hemorrhage. During this time he has not had a steady job and has been on relief for most of that period. He works occasionally as an undertaker's assistant, an occupation from which he seems to derive considerable pleasure, and he seems better adjusted to his environment.

Case No. 2. Patient O. N., P.H. Unit No. 372438 —a 41-year-old electrician, admitted to the Presbyterian Hospital in March, 1933, complaining of ulcer symptoms intermittently for about twelve years. He had been unemployed for the preceding two years and was forced to borrow money from his wife's relatives. Roentgen ray examination disclosed evidence of a duodenal ulcer. The symptoms

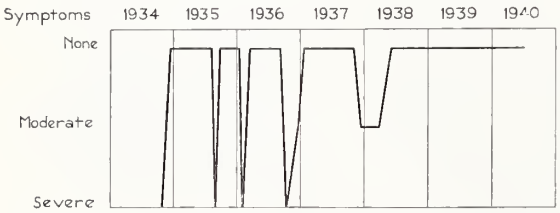


CHART 1. Graph of the symptomatic course in Case No. 1. The patient has been under observation since 1934 and has had four severe episodes of ulcer symptoms each of which followed emotional trauma.

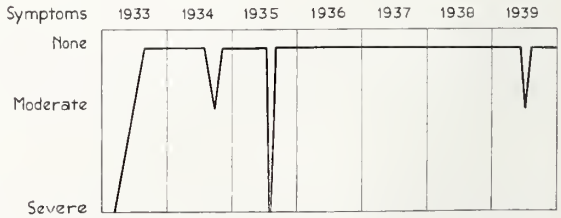


CHART 2. Graph of symptomatic course of Case No. 2. Recurrences of symptoms appeared to be related to economic stress and strain.

were rapidly controlled in the hospital and the patient remained well after discharge for about 1½ years, working at various odd jobs. In 1934 he resumed his occupation as an electrician but after three weeks he developed ulcer symptoms which forced him to give up his job. In 1935, one year later, he again attempted to resume his old occupation, only to develop a recurrence of gastrointestinal symptoms after a few weeks. During most of this period the patient had been following an ambulatory ulcer type of diet. In the winter of 1935 he was elected to the position of justice of the peace, a five-year appointment, and felt that his troubles were over. He himself had noticed that his old occupation as an electrician did not suit him very well. For the past five years the patient has been free from ulcer symptoms except for one brief episode in the summer of 1939. During most of the five-year period he has eaten an unrestricted diet without ill effect.

Evidence as to how emotional stress and strain, as seen in such cases, may act in bringing on an attack of peptic ulcer is still lacking. A possible explanation lies in the observations of Cushing and others on the development of peptic ulcer in patients with organic lesions of the hypothalamic area.

Although emotional strain is a very frequent predisposing or precipitating factor in recurrence of peptic ulcer, many patients have ulcer symptoms and disclaim any associated nervous upset. In the series studied in this clinic, as elsewhere, recurrences have been observed in a considerable proportion of cases (25 per cent) when the symptoms seem to be attributable to changes in the diet. In many instances recent change in the diet appears to be of real importance in bringing about a return of symptoms. However, in many other cases changes in the diet have been made so long before the return of symptoms that little relationship is suggested. Recurrence of ulcer symptoms also frequently takes place after miscellaneous unrelated illnesses such as upper respiratory infections, operative repair of hernia, appendectomy, renal colic, etc.

MEDICAL TREATMENT OF ULCER

It is convenient to divide the problem of ulcer treatment into two parts. First, there is the treatment of the acute episode which has as its immediate purpose, the relief of symptoms and the healing of the lesion. Secondly, since peptic ulcer is usually a recurrent disease, there is the more difficult problem of preventing future recurrences.

There is now fairly general agreement that the initial treatment of peptic ulcer should be medical, rather than surgical, unless of course a surgical emergency such as perforation exists. Under medical management the acute symptoms subside promptly in the majority of cases. This applies to most patients with evidence of bleeding or pyloric obstruction as well as to those individuals who suffer only from pain. The patient with ulcer should be given the benefit of at least one trial on medical therapy.

The rationale which underlies medical treatment has already been indicated in the preceding paragraphs. The essential features of medical therapy are diet and rest which serve to combat hyperacidity and to eliminate nervous and emotional strain. The fundamental characteristics of the ulcer diet are that it is bland, rather low in residue and consists of frequent small feedings. The exact selection of foods in the ulcer regime seems relatively unimportant and the same therapeutic result will usually be obtained whether the diet is begun solely with milk and cream or whether a wider choice of foods is permitted. Adequate sources of the various vitamins should be contained in the diet. Ulcer diets of the past have been shown to be conspicuously low in their content of vitamin B complex and vitamin C. Until recently patients with ulcer have been urged to remain for many months on diets which were inadequate in these essentials. The elimination of roughage, which is important in constructing the ulcer diet, results in a partial elimination of vitamin B. This should be compensated for by adding extra sources of vitamin B in such forms as wheat germ, liver extract or other crude preparations containing high concentrations of this vitamin complex. Low vitamin C blood levels have been reported in many patients with peptic ulcer, probably because of habitual avoidance of fruits and fruit juices over long periods of time. The modern ulcer diet should also provide for an adequate intake of vitamin C.

How long should the average patient continue to follow an ulcer diet? This is a question on which there appears to be no general agreement. Many physicians advise patients to continue on a rigid diet for a year or two or even indefinitely with the hope of preventing recurrent symptoms. Convincing data is lacking, however, to show that extremely prolonged dietary treatment will prevent recurrences of ulcer symptoms after the lesion has once been healed. The experience in this clinic has been, on the contrary, that recurrences take place as frequently in those patients who have remained on an ulcer diet for long periods as in those who have resumed a reasonably normal diet several months after the subsidence of symptoms. This may mean that dietary treatment continued beyond a certain point makes no difference in the patient's symptoms. It seems more likely, from an analysis of individual cases, that the patients who are willing to remain on a strict diet for long periods are the ones who are most apt to have recurrences.

Strict medical treatment should certainly be continued until after the ulcer has healed, a period of time which varies with the individual patient. An accurate idea of the time of healing can be obtained in cases of ulcer of the stomach by gastroscopic and by roentgen examination. Schindler, in his gastroscopic studies, has reported that the average healing time for gastric ulcer is about seven weeks. Wide variations in the rate of healing occur; some

ulcers heal within a few weeks, while others require several months to heal completely.

In radiographic studies made on some fifty cases of gastric ulcer observed at the Presbyterian Hospital, the average length of time required for complete healing as determined by this method was approximately six weeks after the onset of medical treatment. In most of these cases treatment consisted of bed rest for the first three weeks, diet, and alkaline medications. In about 90 per cent of the cases the ulcer as shown on x-ray examination had disappeared within two months of the onset of treatment. Rapid healing under medical therapy is, in fact, so characteristic of peptic ulcer that a failure to obtain a considerable regression in the size of an ulcer crater within two or three weeks of the onset of treatment casts doubt on the diagnosis of gastric ulcer and suggests the possibility of a carcinomatous lesion. In a few cases, prolonged medical treatment has failed to heal ulcers of the stomach, even after five or six months. Such cases stand out as exceptions to the general rule. For practical purposes, it may be assumed that all but a few benign gastric ulcers will show healing within a period of two to three months after the institution of rigid medical therapy.

Whether the rate of healing of duodenal ulcer is the same as that for gastric ulcer cannot definitely be stated. Lacking the means for direct visualization of duodenal lesions such as the gastroscope affords in cases of gastric ulcer, the rate of healing can only be determined by roentgen examination. Evidence on the healing of duodenal ulcer as obtained by x-ray examination is not always conclusive because of the technical difficulties which are presented. Ulcer craters in the duodenum cannot always be demonstrated in patients whose symptoms strongly suggest a recurrence of ulcer, and most patients with duodenal ulcer continue to show a deformed duodenum on x-ray examination in spite of the complete disappearance of all other symptoms and signs of ulcer. For practical purposes, however, it seems justifiable to assume that the rate of healing of duodenal ulcer is approximately the same as that of gastric ulcer.

If rigid dietary therapy is to be maintained for the length of time required for the ulcer to heal, then three months would seem to be an adequate period in most cases. Whether to continue a strict diet for a longer period than this is a difficult question to answer categorically. Probably the problem is better handled according to the experience in the individual case, some patients requiring a restricted diet for a much longer period while others seem to do just as well if they resume a normal diet after several months. Limited diets may act as a boomerang if they result in vitamin deficiency or if they convert the patient into a dietary invalid with numerous unfounded fears of various foods. Certain individual cases, on the other hand, appear to benefit by remaining more or less indefinitely on an ulcer diet, although this number is in the minority.

Attempts to replace the dietary treatment of peptic ulcer with injection treatments have not proven successful. It has been shown that daily injections of distilled water or saline result in relief of ulcer symptoms as frequently as do various proprietary preparations recommended for this purpose. In a small series of cases, studied in this clinic, relief of symptoms was obtained in 75 per cent of patients with daily injections of distilled water. Success with injection therapy in ulcer appears to be due to the psychotherapeutic value of the ceremony which attends such a procedure. The results of this type of therapy are of particular interest because they serve to emphasize the importance of psychic factors in this disease.

RESULTS OF MEDICAL TREATMENT

Medical treatment usually results in the prompt relief of symptoms in patients with ulcer. The difficult therapeutic problem in this disease lies not in the treatment of the acute episode but in the prevention of future recurrences. The average individual with a history of gastric or duodenal ulcer is subject to recurrent attacks. In the series of patients followed over a period of years in this clinic under medical supervision, the majority have suffered from recurrences in spite of medical therapy.

In analyzing our results of therapy, two methods have been used. The results are expressed in terms of the proportion of patients remaining absolutely free from symptoms of ulcer throughout the period of follow-up observation (results by cases). This manner of describing the results fails to give the entire picture, however, because many patients may be almost completely free from symptoms most of the time but fail to be included among the patients who are apparently benefited by therapy because of occasional mild symptoms. In order to obviate this source of error, the results of therapy are also recorded in terms of the proportion of time during which patients are free from ulcer symptoms, that is, in terms of the number of years of freedom from symptoms as compared with the number of years in which recurrent symptoms were present.

A study of the follow-up results of medical treatment was reported by this clinic last year.[1] In this study, an analysis was made of 225 cases of duodenal ulcer for an average period of three and one-third years. The patients in this group had all suffered from symptoms which were sufficiently severe to necessitate hospital admission. They represent the severe manifestations of peptic ulcer because it is the general practice in this clinic to prescribe ambulatory treatment for the average case of duodenal ulcer and not to admit these patients to the hospital unless they fail to respond to a period of out-patient treatment. The results

[1] St. John, F. B., and Flood, C. A.: A Study of the Results of Medical Treatment of Duodenal Ulcer. *Ann. Surg.*, **110**:37 (1939).

obtained in this group apply therefore only to patients who suffered from pain which was unrelieved by ambulatory therapy or who presented evidence of complications such as hemorrhage or obstruction.

Treatment consisted of a period of rest in the hospital with frequent feedings, alkalies, antispasmodics and gastric lavage when indicated. After discharge, the patients were urged to remain on an ulcer regime, consisting of a bland diet with six feedings, for as long as possible. Many of them followed their diet for six to twelve months or even longer. Gradually almost all patients ceased following these instructions, however, and resumed a normal life.

The results obtained portray the expectancy in a group of patients with moderately severe duodenal ulcer. It was found that the majority of patients had recurrent symptoms at some time during the follow-up period. Of the total group of 225 patients, 155 individuals (or 69%) suffered from some symptoms attributable to ulcer during the period of follow-up observation after the original course of treatment in the hospital. In other words, medical treatment employed as rigidly and for as long a period as the patients were able or willing to follow it, failed to prevent further symptoms in the majority of cases.

Recurrent symptoms were usually mild or moderate in severity and were in most cases readily controlled if medical treatment was promptly reinstituted when they occurred. While the results of medical treatment appear discouraging at first glance, actually the outlook in the average case of duodenal ulcer is not a bad one. This is shown when the results are expressed in terms of follow-up years instead of by cases. In an analysis of the results in terms of years, it was found that the total group was followed for a period of 842 follow-up years.

During 60 per cent of these years, the patients were reported to be absolutely free of any ulcer symptoms, leaving only 40 per cent of the years in which at some time recurrent symptoms were present. Mild or moderate symptoms were present during 25 per cent of the years, leaving only 15 per cent of the follow-up years in which severe symptoms were experienced sufficient to incapacitate the individual. Most of the patients in this group actually have had little distress from ulcer symptoms and it seems fair to state that the average patient has no more inconvenience from gastrointestinal symptoms than many people have from incidental upper respiratory infections in the course of several years.

To summarize the preceding statements concerning the medical treatment of ulcer, it may be stated that medical treatment is indicated in the majority of cases of uncomplicated peptic ulcer. The treatment results in a prompt subsidence of ulcer symptoms in the majority of cases, with healing of the ulcer. Recurrence of ulcer takes place in a large proportion of individuals even under prolonged medical treatment and this is observed if they are carefully followed over a period of years. Evidence is lacking to show that prolonged dietary treatment will prevent the ultimate recurrence of ulcer.

SELECTION OF CASES FOR SURGICAL TREATMENT

While there is rather general agreement as to the advisability of medical treatment in most cases of peptic ulcer, there is often a considerable difference of opinion as to just when surgery should be recommended in individual cases. It is usually said that surgery should be advised when medical treatment has failed. However, since many patients have recurrences of ulcer and still cannot be regarded as complete failures of medical treatment, it is often difficult to decide when medical treatment has failed sufficiently to warrant surgical intervention. One would like to be able to state in individual cases what the chances of freedom from severe symptoms in the future would be if medical supervision is to be continued. If recurrences are to take place, how soon they will occur and how severe will they be? These questions can only be partly answered but they are of paramount importance in deciding when surgery should be recommended. Operation for peptic ulcer should be considered in general, when the prognosis under continued medical treatment is so poor as to outweigh the risks of operation.

In the Follow-up Clinic, we have undertaken a study of the more unsatisfactory results of medical therapy to try to throw some light on these questions. The data obtained from this study are far from complete particularly because many patients who would undoubtedly have had a very unsatisfactory course under continued medical treatment have been operated upon. This study has led to the following conclusions concerning prognosis under medical therapy.

It was found that the rate of response of patients with ulcer to treatment in the hospital was a rough guide as to their future course. The majority of patients with ulcer experience complete relief of symptoms within a week if they are put to bed and placed on an ulcer regime. Patients in the medically treated group who continued to have pain for longer than the first two weeks in the hospital have had an unfavorable prognosis. Their follow-up course was in most instances very unsatisfactory and characterized by frequent and severe remissions.

In contrast with the group who suffered from protracted pain while under hospital treatment, those patients whos symptoms subsided promptly after hospitalization had a better than average prognosis. These findings led to the conclusion that the rate of response to medical treatment in ulcer is a useful criterion in estimating the amount of future trouble which may be anticipated in the disease. Protracted pain during treatment is usually followed by an early recur-

rence of ulcer during the follow-up period and may lead one to consider surgery.

Another group of patients who present a difficult problem in the choice between medical and surgical therapy is the group with repeated gross hemorrhage. In this clinic, a small number of individuals with a history of three or more hemorrhages have been continued under medical treatment. The group is a small one because most patients with such a history are operated upon. The majority of these patients have continued to have episodes of bleeding from time to time despite medical management. Study of the clinical course in these cases suggests that patients who have had several hemorrhages from peptic ulcer will have recurrence of symptoms with the same frequency as individuals who do not bleed. They are, however, more apt to have bleeding when the ulcer recurs. It is the threat of repeated hemorrhage which makes such patients candidates for elective surgery, rather than the tendency to recurrence of the ulcer. The threat of repeated hemorrhages from ulcer is measured in terms of the resulting economic incapacity as well as the mortality rate, which is in the neighborhood of 3 per cent in estimating the advisability of surgery.

Pyloric obstruction constitutes a third and perhaps the most clean-cut indication for elective surgery in ulcer. To warrant operation, the obstruction should be shown to persist in spite of a period of medical treatment. There are very few patients in the series treated in this clinic who had persistent obstruction during hospital treatment and who have remained on conservative therapy. Almost all of these patients have had unsatisfactory follow-up results. Pyloric obstruction has long been an indication for surgical intervention in ulcer.

A fourth indication for surgery in peptic ulcer is seen in those cases in which x-ray examination shows an ulcer crater in the stomach persisting in spite of medical treatment. Under such circumstances, exploration may be indicated because of the possibility of a malignant lesion being present.

SELECTION OF OPERATION IN PEPTIC ULCER

The choice of a particular type of operation for a patient with ulcer is as much a matter for debate as is the question of when operation is indicated. Recent studies reported from this clinic by St. John, Harvey, Guis and Goodman,[2] form the present basis for the selection of operation in cases of ulcer at the Presbyterian Hospital. These studies, published last year, outlined the follow-up results in almost all of the cases of peptic ulcer operated upon between the years 1916 to 1935. The series consisted of 355 cases of duodenal ulcer and 88 cases of gastric ulcer. The principal operative procedures that had been employed were posterior gastro-enterostomy and subtotal gastrectomy.

[2] St. John, F. B., Harvey, H. D., Guis, J. A., Goodman, E. N.: A Study of the Results of Surgical Treatment of Peptic Ulcer. *Ann Surg.*, **109**:193 (1939).

The results of these two operative procedures were analyzed according to whether the original lesion was a gastric or a duodenal ulcer. The cases of duodenal ulcer in the series were subdivided into several groups according to the major symptom which was present before operation. These groups were as follows: duodenal ulcer with (1) obstruction, (2) bleeding, and (3) pain. Under obstruction were included those cases which had 50 per cent or more six-hour retention after a barium meal, or any 24-hour retention, with the added provision that this degree of retention had to be persistent and unrelieved by medical treatment at the time of operation. Under (2) bleeding, were placed those cases in which there was convincing evidence of gross hemorrhage at any time before operation. Cases showing only occult blood were not included in the hemorrhage group. Where obstruction and hemorrhage were both present, the cases were placed in the group with obstruction. Group 3, duodenal ulcer with pain consisted of the remaining patients who had neither obstruction nor bleeding.

Posterior gastroenterostomy was followed by complete freedom from ulcer symptoms in 81 per cent of the cases of duodenal ulcer with obstruction. In contrast with this very satisfactory figure it was found that gastroenterostomy in cases with bleeding or pain alone yielded far less satisfactory results. Complete freedom from ulcer symptoms after gastroenterostomy was obtained in only 41 per cent of the patients in the hemorrhage group and in 44 per cent of the patients with pain. Gastroenterostomy yielded its poorest results in patients with ulcer of the lesser curvature of the stomach. Only 23 per cent of the patients with gastric ulcer remained free from ulcer symptoms after gastroenterostomy. On the basis of these findings, it has been concluded that posterior gastroenterostomy should be reserved for cases of duodenal ulcer with persistent pyloric obstruction, where it is followed by complete and permanent (i. e. as long as followed) relief of symptoms in a high percentage of cases, and that this operation should not be done in cases of duodenal ulcer without obstruction or in gastric ulcer.

There is a considerable discrepancy between these results and those reported by other clinics where gastroenterostomy is still employed in intractable cases of duodenal ulcer regardless of whether the predominating symptom is pain, obstruction, or bleeding. This disparity is probably explained in part by the fact that almost all of the cases in this study have been followed up by means of revisit to the clinic at frequent intervals through the years, a follow-up method which affords a better opportunity to be certain that no symptoms of ulcer have recurred at any time. The period of follow-up has been comparatively long, averaging about six years. The rigid exclusion from the satisfactory follow-up group of any patient who has had ulcer symptoms at any time after operation, no matter how mild or how short in duration, also lowers the

percentage of successful results and serves to accentuate the difference between the usefulness of this operation in cases with and without pyloric obstruction.

Subtotal Gastrectomy

The results of partial or subtotal gastrectomy for peptic ulcer in the records of the Presbyterian Hospital Follow-up Clinic have been excellent. Following the Billroth II or Polya type of gastrectomy, 90 per cent of patients with gastric ulcer and 76 per cent of patients with duodenal ulcer remained symptom free throughout the follow-up period. There is no relationship between the predominating symptom present before operation and the follow-up result, and these procedures seem to be equally effective whether the indication for operation in cases of duodenal ulcer is persistent pain, repeated bleeding or obstruction.

The effect of subtotal gastrectomy in preventing recurrences of ulcer is so gratifying that this operation might be recommended more readily for patients with frequently recurrent symptoms, were it not for the accompanying mortality. In the hands of the general surgeon, experience has shown that the operative mortality after subtotal gastrectomy is apt to be high. In the hands of the surgeon who has had an abundant experience in gastric surgery, however, the mortality rate falls to less than 5 per cent, an operative risk which is frequently justifiable when a patient is faced with the likelihood of frequent periods of incapacity or the dangers of oft recurrent hemorrhage in severe gastric or duodenal ulcer. Another important factor in reducing the mortality rate in operation for peptic ulcer lies in the earlier recognition by the internist of those cases which would ultimately come to surgery because of recurrent or persistent symptoms. The feeling is growing that patients who are apt ultimately to come to elective surgery for peptic ulcer should be operated upon before fifty years of age when the operative risk is not so great and before the development of chronic degenerative disorders which increase the hazard of any operative procedure.

The effect of subtotal gastrectomy in preventing recurrences of peptic ulcer appears to depend upon the reduction in gastric acidity which occurs after the operation. Most observers agree that a reduction in the level of acidity of the gastric contents takes place after subtotal gastrectomy. Approximately 75 per cent of patients show an anacidity with a simple test meal and most of the remaining 25 per cent have very low free acid values. When stronger stimulants to gastric secretion such as histamine are used in performing a gastric expression, anacidity is found in a smaller proportion of cases. The reduction in gastric acidity following the operation apparently results partly from a decrease in the volume of acid secretion and partly from the free regurgitation of intestinal juices through the wide enterostomy stoma into the portion of the stomach which remains. The reduced volume of acid secretion is due largely to the operative removal of the antral part of the stomach which controls the chemical phase of acid secretion by the fundus. Subtotal gastrectomy for peptic ulcer appears to be based, therefore, upon the principle of reducing permanently the level of gastric acidity in order to prevent recurrent ulceration.

SUMMARY AND CONCLUSION

In conclusion, the following generalizations may be made about the treatment of peptic ulcer, based upon the experience of the Ulcer Follow-up Clinic of the Presbyterian Hospital:

Conservative medical therapy usually controls the symptoms of ulcer promptly and results in healing of the lesion. Medical management is disappointing as a measure to prevent recurrences of the disease in cases seen in the hospital, even if carried out over a long period of time. Surgical therapy should be considered if the risk of operation appears to be outweighed by the prospect of frequent and severe recurrences under continued conservative treatment or if symptoms persist after an adequate trial of medical treatment.

The chief indications for elective surgery are persistent pain under hospital treatment, oft recurrent gross hemorrhages, pyloric obstruction which fails to respond to medical treatment and suspected malignancy in cases of gastric ulcer. Posterior gastroenterostomy yields excellent results in cases of duodenal ulcer with persistent pyloric obstruction, but is not indicated in other types of duodenal ulcer or in gastric ulcer. Subtotal gastrectomy results in a complete and apparently a permanent freedom from symptoms in both gastric and duodenal ulcer in a high percentage of cases regardless of whether the indication for operation is persistent pain, recurrent hemorrhage, or obstruction.

SECRETARIES'

CONFERENCE

January 19, 1941

Indianapolis

See page 39

NEW SULFANILAMIDE DERIVATIVES AND THEIR MODE OF ACTION*†

RALPH R. MELLON, M.D.
PITTSBURGH

It is my pleasure, as well as my privilege, to present to the physicians of the Indiana State Medical Association the latest chemotherapeutic development which is known as sulfathiazole. The original synthesis of this drug and its application particularly to pneumonia has resulted from a cooperative arrangement between our laboratories and those of the Maltbie Chemical Company. Last fall our Drs. Gross and Cooper[1] published the first experimental work done with this drug, although a preliminary announcement of it, together with the chemical synthesis, had already been made by Dr. Russel J. Fosbinder and Dr. L. A. Walter of the Maltbie Company.[2] The germ used for our own testing was the pneumococcus, inasmuch as pneumonia had been our primary clinical problem as it has been Pittsburgh's chief medical problem for decades.

Our studies to date show that there are two outstanding highlights about the therapeutic action of sulfathiazole against the pneumococcus. The first is that it is just as effective therapeutically as sulfapyridine; the second is that most of the undesirable toxic features of the latter have been eliminated. I refer now particularly to the severe nausea and vomiting that are characteristic of the action of sulfapyridine throughout the whole course of the administration of the drug. With sulfathiazole, on the other hand, they are transient features. In addition to this, the intense apprehension and fear so commonly present in pneumonia, as well as in other cases of fulminating infection, are allayed in a noteworthy manner; and the patient's appetite may be stimulated to a noteworthy degree. The reason for these significant features of the new drug's behavior I shall return to presently in connection with the mode of action of the sulfonamide compounds as a whole.

The chief toxic features of this drug that remain are its occasional tendency to cause dermatitis, as well as renal stones, as occurs with sulfapyridine; but the general toxic features of sulfanilamide have been reduced nearly to the vanishing point. But it would appear of the greatest clinical value that the clinical effectiveness of sulfapyridine in pneumonia should be retained while its more objectionable and serious toxic features have been, to such a large extent, eliminated.

Our own series of pneumonia cases during the past winter ran between 75 and 100 and the type of distribution may be said to have included some of the most serious that we have in Pittsburgh pneumonias. The mortality in this series was the conventional 5 per cent that one usually associates with sulfapyridine's effectiveness. This series of cases is relatively small, but Drs. Flippin and Pepper of the Department of Medicine of the University of Pennsylvania had a series of 400 to 500 cases this past winter and their evaluation of the series both from the therapeutic standpoint and in regard to toxic manifestations is substantially as I have given you. On Dr. Thomas' service at St. Luke's Hospital in New York the first 100 cases of various types of pneumococcus pneumonia showed a mortality of only 2 per cent.

CHEMICAL ASPECTS OF SULFANILAMIDE'S MODE OF ACTION

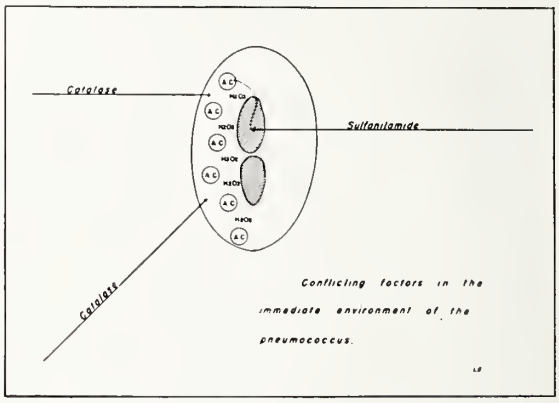


Diagram No. I

The above figure is illustrative of the changes that we picture as taking place when sulfanilamide diffuses through the capsule of the pneumococcus into the interior of the cell. Under normal conditions hydrogen peroxide is being elaborated by the cell, but is immediately destroyed when the enzyme catalase, which is always present in the blood, diffuses into the cell which results in its destruction into water and oxygen. However, when sulfanilamide enters the cell it is converted to anti-catalase (AC) by the oxidative processes in the cell, diffusion of the catalase from the exterior is blocked, and this results in the accumulation of peroxide, not only in the cell, but in the surrounding medium, as is indicated by its accumulation.

The fact that sulfanilamide is capable of being converted by the germ itself into the anti-catalytic derivative is a most important fact in connection with the drug's mode of action. It means that its conversion into the active form need not be brought about by the cells of the host, a fact which appears

---

* Read before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at French Lick, October 30, 1940.

† From The Western Pennsylvania Hospital, Institute of Pathology.

[1] Gross, P., Cooper, F. B., and Lewis, M.: Evaluation of Sulfanilamide Derivatives of Heterocyclic Amines. *Proc. Soc. Exper. Biol. & Med.*, **42**, 421, 1939.

[2] Fosbinder, R. J., and Walter, L. A.: Sulfanilamido Derivatives of Heterocyclic Amines. *Jour Amer Chem. Soc.*, **61**, 2032, 1939.

to be of cardinal importance, owing to the great instability of the active form per se, which is the hydroxylamine derivative of sulfanilamide. That is to say, if the conversion to the hydroxylamine derivative were not capable of being made by the germ, but only by the host cells, it would probably be broken down completely before enough of it had a chance to reach the germ to be effective.

That this conversion takes place within or on the surface of the germ itself, and the substance does not escape into the surrounding medium, is supported by the studies of Chandler and Janeways.[3] Thus they show that a sulfanilamide-containing medium in which growth-inhibited hemolytic streptococci are present, does not of itself contain the bacteriostatic substance, aside from that which is anchored on the surface of the germs themselves. Moreover, by washing the germs this substance is easily freed from the bacterial body. Now if these washed germs are put into a fresh sulfanilamide medium, they grow freely for several hours before showing any evidence of being affected by the drug. On the other hand, if bacteria whose growth has been inhibited by sulfanilamide-containing media are transferred into such sulfanilamide media, they continue to be inhibited.

These experiments go far toward explaining one of the most consistently occurring puzzles of sulfanilamide's action in the test tube. For the first few hours the germs show no evidence of being affected by the drug; in fact, their growth seems to be stimulated by it. But from the fourth to the eighth or tenth hours, their growth rate is slowed down very materially. Furthermore, the amount of the sulfanilamide beyond a certain concentration has no increased unfavorable effect on germs. This is quite the opposite from what we should expect if we added formaldehyde, mercuric chloride, or carbolic acid, to virulent microorganisms; for the effect here, particularly of large amounts, is almost immediate. This all indicates that the drug must be converted to some bacteriostatic form, but only after the germs have started to grow in it appreciably.

That hydrogen peroxide does actually accumulate in demonstrable amounts in pneumococcus cultures containing 10 mgm. of sulfanilamide is clearly shown in Diagram II. In the control tube containing no sulfanilamide the two inclined curves show clearly that between the fourth and eighth hours peroxide is accumulating in the cultures, although it keeps pace with the multiplication of the bacteria. That is to say, there is no increase of the peroxide per bacterium and this is shown by the broken line of the diagram, which shows virtually the same amount of the peroxide from the fourth to the eighth hours, and this is the period where bacteriostasis is especially marked.

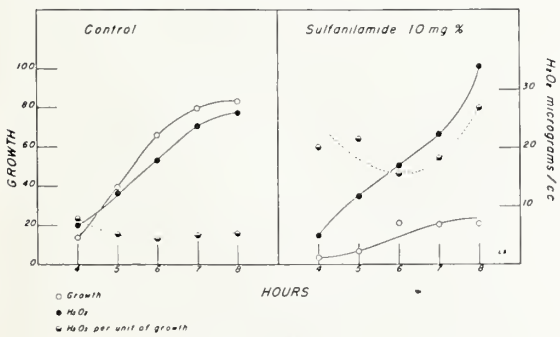


Diagram No. II

In the right hand section of the diagram illustrating the tubes containing sulfanilamide, the situation is wholly different. The broken line indicating the amount of peroxide shows a rise between the fourth and eighth hours so that there is registered 30 gammas per cc. at the end of this period. The lowest curve of the figure indicates that the pneumococci have multiplied very slightly during this period, which can only mean that the amount of peroxide per bacterium has increased several times. In fact, we have brought about a similar degree of bacteriostasis in pneumococcus cultures by adding amounts of fresh peroxide comparable to those which have accumulated in these cultures under the influence of sulfanilamide.

PRACTICAL IMPLICATIONS OF THE OXIDATION THEORY

The first thing for the clinician to remember is that sulfanilamide, as it is fashioned in the laboratory of the chemist, is as harmless to bacteria as sugar of milk were it not for the capacity that it possesses to be oxidized to an "activated" form *by the bacteria themselves.* Thus their growth is impeded or, as we say, the drug is bacteriostatic. Obviously, it means that anaerobic infections would not be so likely to be overcome as aerobic ones, although under special environmental conditions perhaps an effect on anaerobic ones is distinctly a possibility. Recent experimental work at The Mayo Clinic indicates that sulfanilamide is ineffective with the gas bacillus infection, and clinically the results have been anything but convincing. As far as we know anaerobic streptococci are not affected by this drug.

This situation is further highlighted by the work of Meleny.[4] The surgeons, I know, are especially aware of the success of his zinc treatment for the spreading indolent type of ulcer caused, almost invariably he believes, by hemolytic streptococci that are semi-anaerobic in their growth requirements. He shows clearly that the zinc per se is ineffective but stresses the necessity that the zinc peroxide be active, meaning thereby that it be capable of liberating hydrogen peroxide. In other words, the compound functions largely as a carrier of hydrogen peroxide which is the active bacteriostatic agent.

This point of view accords rather perfectly with

[3] Chandler, C. A., and Janeway, C. A.: Observations on the Mode of Action of Sulfanilamide in Vitro. *Proc. Soc. Exper. Biol. & Med.*, **40**, 179, 1939.

[4] Johnson, B. A., and Meleny, F. L.: The Antiseptic and Detoxifying Action of Zinc Peroxide on Certain Surgical Aerobic, Anaerobic, and Micro-Aerophilic Bacteria. *Ann. Surg.*, **109**, 881, 1939.

our hydrogen peroxide theory of sulfanilamide's action as just set forth, thus forming a common meeting ground for the mode of action of the local antiseptic and the true chemotherapeutic agent. The failure of sulfanilamide per se in these ulcerative conditions appears to be due to its inability to yield oxidation potentials in the tissues sufficiently high to kill the anaerobe or to force it to adapt to the aerobic state. In case of its conversion to an aerobe, as we observed in one case, sulfanilamide administration then resulted in cure, whereas it failed to affect the case as long as the streptococcus existed as an anaerobe.

It is a well known fact that abscesses and other necrotic foci are notoriously lacking in their content of oxygen. Not only is the circulation of such foci seriously impaired, but the broken down products of pus, such as the peptone-like substances, tend to absorb any oxygen that might otherwise have entry to the focus of infection. In other words, the local conditions are probably so largely anaerobic as to block effectively any oxidative changes in the sulfanilamide molecule.

THE ANTI-ENZYMATIC NATURE OF SULFANILAMIDE'S ACTION

We have indicated above that by virtue of its oxidative effect on the NH_2, or free amino group of the sulfanilamide molecule, active enzyme poisons were developed. Not only do they affect catalase, but also other enzymes along lines given somewhat fuller treatment in a paper already published.[5]

Very recently our Dr. Locke[6] has shown that the SO_2NH_2 end of the sulfanilamide molecule inactivates an enzyme of the host which appears to result in the well known acidosis caused by sulfanilamide. Very brief reference has already been made to this possibility in a paper read before the Ohio State Medical Society at its 1940 May meeting.[7] The enzyme concerned is carbonic anhydrase which is involved in the oxygen-carbon dioxide interchange in the tissues. This enzyme is found exclusively in the red blood cells and in the parietal cells of the stomach, where it is intimately concerned with the secretion of hydrochloric acid. Dr. Locke has also found that histamin activates the enzyme, thus explaining the well known fact that intramuscular injections of histamin increased the secretion of hydrochloric acid by the stomach. When the enzyme is inactivated by sulfanilamide the alkali of the blood undergoes increased elimination by the kidneys, resulting in a relative acidosis. Sulfathiazole and sulfapyridine do not produce acidosis because they do not inactivate carbonic anhydrase. This for the very good reason that both the pyridine and the thiazole nuclei are substituted in the SO_2NH_2 group, thus changing it so it no longer inactivates carbonic anhydrase.

[5] Mellon, R. R., Locke, A. P., and Shinn, L. E.: The Anti-Enzymatic Nature of Sulphanilamide's Bacteriostatic Action. *Amer. Jour. Med. Sci.*, **199**, 749, 1940.

[6] Locke, A. P.: In Press.

[7] Mellon, R. R.: In Press.

THE DETOXIFICATION OF SULFANILAMIDE AND THE RESERVOIR ACTION OF NEW SULFANILAMIDE DERIVATIVES

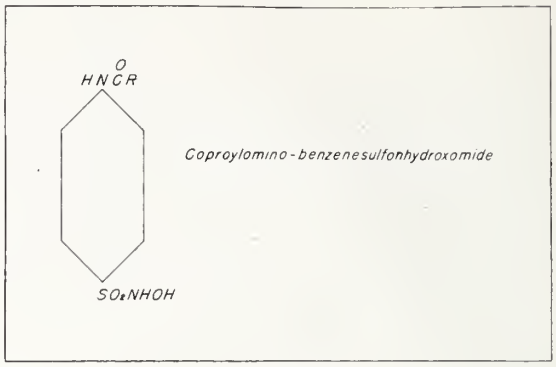


Diagram No. III

Diagram III also gives the formula of a new compound of sulfanilamide prepared by the Sharp & Dohme Laboratories in conformity with our hydroxylamine postulate of the hydrogen peroxide theory. The drug appears to be unique from the clinical standpoint in that over 100 clinical cases treated with it have shown no cyanosis nor gross indications of methemoglobin formation. Our animals tolerate large amounts of it over long periods of time without weight loss or other signs of toxicity. In other words, it is so much less toxic than sulfanilamide as to be very noteworthy. The compound is being marketed under the name of "Sulfabenamide."

The fact that the excellent therapeutic powers of sulfanilamide are maintained led us at first to ascribe this action exclusively to the hydroxylamine portion of the molecule which, it will be recalled, is poisonous to certain enzymes, catalase especially. But our experiments have also shown that the acyl linkage at the upper end of the molecule is slowly shelled off in vivo, thus liberating very small amounts of the original sulfanilamide. This liberation is presumably so slow that the original compound may be viewed as a reservoir for sulfanilamide.

Such an action forms a new note in the therapeusis of the sulfonamide compounds, being the equivalent of the administration of very small doses of it, at intervals so frequent as to be rather impractical, if given orally, let us say. This implies that the amount of free sulfanilamide present in the blood at any one time is not sufficient to yield appreciable amounts of a methemoglobin-forming oxidant, which imparts toxicity to the molecule.

How long a period should the drug be administered in acute infectious processes? Another point of clinical interest, intimately associated with the drug's mode of action, concerns the necessity for its prolonged administration and frequent doses, if recurrences of the infection are to be avoided. To understand this, one need but keep in mind that the drug's action on a bacterial culture is not primarily bactericidal, but rather is bacteriostatic,

and that the actual killing of the germs is brought about by the blood serum and other body fluids, particularly by the leukocytes.

Even so, the bacteria have a high survival value and show their resentment at being summarily slaughtered, by adapting themselves to such adverse influences in ways that are indeed remarkable. An indication of their versatility is seen in the long chains and other pleomorphic forms of pneumococci that occur in experimental pneumococcal peritonitis in the mouse. These pleomorphic forms have been generally, and I might say erroneously, regarded as bacterial involution forms. We have now proved that in reality they are independent phases in the life history of the bacterial culture. As such they progressively lose their virulence and finally their capsule, but the fact that they may readily revert to forms of highest virulence when not in contact with the drug makes it imperative that its administration be continued, until the phagocytes finally dispose of these mutation-like phases of the bacterium which, although lacking somewhat in virulence, are very tenacious of life.

The various pleomorphic forms found in the cultures indicate rather clearly that the organisms are undergoing a progressive degradation change from the mucoid, highly virulent phase to culminate in a non-mucoid, nonencapsulated organism which is devoid of virulence. Intermediate stages between these two extremes are represented by pleomorphic bacilloid forms, long-chain structures, and decapsulated organisms which no longer give the Neufeld test. When these different phases in the life history of the organism are arranged in series, with regard to the degradation of their metabolic functions, it is seen that they constitute a diminishing gradient with respect to the formation, first of methemoglobin; second, of inulin fermentation: and third, of peroxide production; and finally, of virulence.

NATURAL RESISTANCE FACTORS, AND THE DRUG'S MODE OF ACTION

Now for another clinical consideration often baffling to the chemotherapist who is likely to expect too much of his drug. Not infrequently you will find cases which the drug alone will not cure, but this cannot always be explained on a special resistance possessed by the bacterium to the drug. Nor may we ascribe it to a lack of antibodies. While there may be a number of reasons for such occurrences, generally speaking they are often to be found in the individuality of the patient himself.

Perhaps I can point my meaning by referring to the well-known high mortality of chronic alcoholics to pneumonia. The vitamin studies of Minot and his co-workers[8] have shown that the peripheral neuritis of alcoholics is really due to a vitamin deficiency, particularly vitamin B_1, and it had come to be suspected by them that the pneumonia mortality is also linked with the alcoholic's malnutrition. Malnutrition of alcoholic origin, as well as forms of other origin, may be manifested in part by a low leukocyte count, and you are all familiar with the serious prognostic importance of this sign in pneumonia, and indeed in any other acute pyogenic infection. Inasmuch as the drug itself is well known to depress the bone marrow in some cases, the physician may find himself "stymied" by this combination of circumstances.

A possible way out has been pointed by the studies of Dr. Arthur Locke, of our laboratory, who has shown both the diagnostic and therapeutic bearing of these considerations, as well as an interesting correlation with sulfanilamide's mode of action. Not only has he demonstrated experimentally that certain of the vitamins and hormones are significantly important in their contribution to one's natural resistance to pneumonia, but that these natural resistance factors fall into a category wholly distinct either from the antibodies or the action of drugs such as sulfanilamide.

The experimental basis of Locke's work lies in his successful correlation between a rabbit's ability to warm up after chilling and its natural resistance to pneumococcus infection. The optimum value may be viewed roughly as 30 minutes, meaning thereby that a rabbit which has been chilled to 96° F. requires that long to return to a temperature of 99° F. The specific bearing of these considerations will now be illustrated.

TABLE I

FITNESS AND ABILITY TO REMOVE INTRAVENOUSLY INJECTED PNEUMOCOCCI FROM THE CIRCULATING BLOOD

Number of Rabbits Studied	*Fitness Rating*	*Number of Pneumococci Injected**	*Number Remaining Unremoved, After: 0.5 Hrs.*	*1.0 Hr.*	*3.0 Hrs.*	*Per Cent of Group Surviving*
12	> 0.6	7 to 83	0 to 4	0	0	92
13	0.6 to 0.5	6 to 80	0 to 8	0 to 2	0 to 4	69
11	< 0.5	6 to 34	1 to 24	1 to 12	2 to 22	0

* Per cc. of estimated blood volume.

The above table shows the relation between the warming-time of different rabbits and their ability to remove highly virulent pneumococci from the circulating blood. Warming-time, in place of being expressed in minutes, is expressed as a numerical value, the natural derivation of which is not important here, but can be gotten by reference to studies already published.[9] It is spoken of as the animal's fitness rating. If the fitness rating is high, 92 per cent of a group of rabbits survive, usually without symptoms; if the fitness rating is only moderate, 69 per cent survive; and when it is less than a value of 0.5, indicating a poor rating, none of the animals survive.

[8] Minot, G. R.: Some Fundamental Clinical Aspects of Deficiencies. *Ann. Int. Med.*, **3**, 216, 1929.

[9] Locke, A. P.: (a) Lack of Fitness as the Predisposing Factor in Infections of the Type Encountered in Pneumonia and in Common Cold. *Jour. Inf. Dis.*, **60**, 106, 1937.

(b) Non-Specific Factors in Resistance. I. Capacity to Sustain Effective Circulation. *Jour. Imm.*, **36**, 159, 1939.

TABLE II

FITNESS AND ABILITY TO REMOVE, FROM THE CIRCULATING BLOOD, PNEUMOCOCCI INVADING FROM AN INTRADERMAL FOCUS

Number of Rabbits Studied	*Fitness Rnting*	*Per Cent With n Blood Culture at 26 Hrs., of:* < 2	2 to 2000	> 20000	*Per Cent of Group Surviving*
16	> 0.6	69	31	0	44
19	0.6 to 0.5	37	42	21	11
16	< 0.5	0	7	93	0

The results in Table II differ from those in Table I in that the pneumococci are invading the blood stream from a pre-established intradermal focus, in which case there is no way of knowing accurately their number, as was the case in Table I, where measured numbers were injected directly into the blood stream. Thus rather unlimited numbers are free to gain access to the blood stream if there is nothing to restrain them. So we can expect a smaller percentage of the animals to recover, as indeed is indicated by 44 per cent, 11 per cent, and zero per cent, for the respective fitness groups.

TABLE III

COMPARATIVE ANTIPNEUMOCOCCAL EFFECTIVENESS IN THE RABBIT OF SULFANILAMIDE & VITAMIN C. SINGLY, AND COMBINED.

INTRADERMAL INFECTION. TYPE I.

Series	*No. of Rnbbits*	*Fitness Rnting*	*% With Neg. Bld. Culture 24 Hrs.*	*% Sur-vivals*	*Blood Culture Results After 24 Hours High Fitness Animals*	*Low Fitness Animals*
Vit. C.	12	0.6	33	33		Average number of Colonies
	12	0.6	0	0	The Count Varied from 2 to 15 Colonies per cc. of Blood.	226 Colonies per cc. Blood. Highest Count 452 Colonies per cc.
Sul.	12	0.6	57	86		
	12	0.6	25	25		
Sul. &	12	0.6	100	100		
Vit. C.	12	0.6	57	71		

Similar Results with Cortin, Liver Extract, and Vitamin B_1.

The above table shows the effect of large doses of vitamin in reinforcing the natural resistance factors, and also when vitamin C is combined with sulfanilamide. The lower part of the table is particularly instructive, showing that in rabbits with a good fitness rating, sulfanilamide and vitamin C save 100 per cent, whereas in those with a poor fitness rating only 71 per cent survive. This in contrast to the 86 per cent saved with sulfanilamide alone and 25 per cent of the rabbits with poor fitness ratings. This emphasizes the importance of the natural resistance factors and the imperfect action of sulfanilamide when they are inadequate.

Apparently these experimental considerations serve to bring us back to the rather ancient theme dealing with the necessity for the maintenance of an effective circulation in pneumonia which heretofore has been approached all too crudely with heart "whips" of one sort or other. In contrast to this purely symptomatic approach, Locke's studies are more fundamental and, shall we say, more "streamlined."

Older physicians have often related to me how their cases of pneumonia showed a tendency to water-logging of the tissues—and the alcoholics are very prominent in this connection. They believed they got very effective action from the old mixture of calomel and Squills known, I believe, as the Neimeyer pill. Neither they nor Neimeyer had the slightest idea of the modus operandi of the treatment, except that it did seem to get rid of the edema. Really this is another way of saying that it restored the circulation to a more normal balance. In light of Locke's studies, it is not unlikely that in such cases these physiological measures were most useful as a stimulative circulatory support and may have saved the lives of many patients, *provided*, of course, that their infecting organism was not too high in its virulence. For that is the sort of case where the modern chemotherapy is indispensable.

At one time bacterial vaccines had a definite vogue with certain physicians in the treatment of pneumonia and, at a later period, glucose injections came on the scene, and finally the oxygen tent. In a last analysis, all of these agencies, diverse as they are among themselves, really effected a better oxygenation of the patient's tissues. Oxygen therapy is, of course, the most direct approach, and glucose which provides a very ready source of oxidation comes next, while the vaccines or other nonspecific protein injection, by inducing circulatory balance by their anti-shocking effect, indirectly bring about increased utilization of oxygen.

With the exception of the vaccine, these various measures, including the vitamins, are being used currently in treating pneumonias in children by Dr. McDonald,[10] of Boston, who recently has claimed a considerable reduction in mortality without the use of either specific serum or chemicals. On the other hand, when the latter are employed in the cases to which they are most applicable, mortality is still further reduced and in the usual spectacular manner. The point is that, while the chemical treatment is of primary importance, it may attain that status only when the defense forces of the host are functioning adequately; or in a last analysis, as we have pointed out, the killing of the germ is more an effect of the host than of the drug itself—so much so that when the former are *too* deficient, the drug alone may not be able to effect a cure.

From all this it is easy to infer that the ideal chemotherapeutic drug is one that functions somewhat as a double-barreled shot-gun. One barrel is directed against the germ, the other toward stimulating the defenses of the host. Earlier in my discussion I referred to the rather remarkable fact that sulfathiazole tended to increase the appetite and to produce a feeling of general well-being. A prominent effect of vitamin B_1 is a stimulation of appetite, so the suggestion has arisen, does the

[10] McDonald, F. C.: Non-Specific Treatment of Pneumonia in Infants and Children. *New Eng. Jour. Med.*, **221**, 721, 1939.

thiazole nucleus function to any extent in lieu of a vitamin? In view of the effect of vitamins on the warming times of Dr. Locke's rabbits, and their bearing on resistance to pneumococcic infection, the technique provides a method of determining whether sulfathiazole has a similar effect, especially since the chemical constitution of the thiazole nucleus is similar to that of vitamin B_1.

With your permission may I recapitulate as follows: First, that it is our present opinion that sulfanilamide is inactive toward highly virulent bacteria until it is partially oxidized to stages whose chemical properties make for inactivation of the germs' enzymes, thereby interfering with their food supply.

Second, an accompanying effect of this starvation process is to permit the accumulation of their own excretory products of which the toxic hydrogen peroxide is one. Thus they may be said to "stew in their own juice."

Third, this effect per se is chiefly bacteriostatic but, with the aid of the serum and other antibacterial fluids of the body, may become bactericidal for a goodly percentage of the germs.

Fourth, those that escape this killing action adapt themselves as new phases in the culture's life history; but fortunately for the host, his leukocytes put the coup-de-grace on these.

Fifth, if the leukocytes and other natural resistance forces of the host are deficient, they should be reinforced with appropriate physiologic measures—with the aim of increasing the host's own oxidative powers. Otherwise, those phases of the germ that escaped the drug's action may remain dormant in the tissues, which then have the status of carriers; or they may regain a portion of their virulence and multiply sufficiently for the condition to become subacute or chronic; or they may even regain their original virulence, in which event a full-blown recurrence of the disease will take place.

DISCUSSION

R. M. Dearmin, M.D. (Indianapolis): You say when this drug is left off you get a recurrence of the disease. If that occurs, will a repetition of the drug again cure the disease, or is there a resistance to the drug at that time?

Ralph R. Mellon, M.D.: That is a good question. It will cure the disease again provided this particular bacterial strain you are dealing with has not within it the ability to develop the condition spoken of as "fastness." That is particularly true when using sulfapyridine. Just as soon as these germs are exposed to the drug, they develop a certain ability to resist it. This state of "fastness" is the same as that occurring in connection with a dye. A dye that is "fast" is one that will not wash out of a fabric; and a germ that is "fast" to a drug is one that will not be affected by the drug. Thus it is possible for the germs to resist sulfanilamide, or sulfapyridine, either one, even while retaining their original virulence. Fortunately that does not happen so very often.

Donald Colglazier, M.D. (Salem): What milligram of blood level can you achieve?

Ralph R. Mellon, M.D.: Depending on the type of case treated, you can get a very excellent result with the blood level down as low as two or three milligrams per cent. You do not have to go to the high levels that you reach with sulfanilamide, say 10 per cent. You can get it from much lower levels, particularly with sulfathiazole and sulfapyridine.

B. E. Ellis, M.D. (Indianapolis): Do you advise giving vitamin B_1 along with this drug?

Ralph R. Mellon, M.D.: Yes, under certain conditions I think it is a very good thing to give B_1 or C, or even certain of the various hormones. We, however, like to select our cases for the use of such adjuvants. I have spoken of the pneumonic infection of the chronic alcoholic. A low white blood count provides additional indication for the use of vitamin B_1. On the other hand, certain types of people have a very high vitamin C requirement, and you will have to give them one gram to one and one-half grams of vitamin C a day in 3 or 4 broken doses. These people are usually inclined toward a low blood pressure and if this is prominent in the clinical picture, you can also give them cortin to good advantage. I had one case, a woman of 76, who had diabetes and a Type III pneumonia, and one would think her chances would have been about one in a thousand; yet by giving her large doses of vitamin C and cortin, and of course insulin, she made a very excellent recovery from the Type III pneumonia.

So, if you are familiar with the patient's history and constitution, you are in better position to know the particular factors that may be influencing his resistance to infection. Thus the natural thing would be to try to supplement the deficient factors. On general principles I would say vitamin B_1 and C would be excellent to use, but in large doses because they are burned up pretty rapidly during the course of an infection.

Sidney S. Aronson, M.D. (Indianapolis): I would like to ask if sulfathiazole is as effective in combatting the streptococcus as sulfanilamide? Also if there is any advantage in using the drug in wounds that are infected?

Ralph R. Mellon, M.D.: Generally speaking, I would say it would be just as effective as sulfanilamide, and in case there was no evidence of renal irritation, which is its chief drawback, I would say it would be the drug of choice.

In regard to open wounds and things of that sort, I understand that it is being used, but it just so happens that at this time we have been working on a new preparation of iodine that has such amazing ability to heal the tissues and prevent infection, that I think I would use that in all first-aid cases, because it does not burn the tissues and has amazing healing qualities. I am not prepared

to say just what happens when sulfanilamide or sulfathiazole is used. I understand the surgeons put the powdered material into fractures, and I know the dentists have claimed to use it successfully to pack "dry sockets," but as I understand, along with ultraviolet light. It is not just clear to me how it functions, but nevertheless they seem to be getting results, clinically. I also understand that sulfathiazole is to be given a rather extensive try-out in burns. I do not know its *raison d'etre*, or whether any of the people who are going to try it have some definite idea in mind, or whether they are merely trying to see what are its limitations.

R. P. AUSTIN, M.D. (Bedford): Has there been any evidence that patients develop cyanosis from lack of oxygen following the action of the drug?

RALPH R. MELLON, M.D.: No, I do not think so, because that cyanosis, after all, is brought about by the oxidizing capacity of the body on the drug. There results a host of oxidization products of the drug which are rapidly absorbed by the red cells. A small amount of methemoglobin may be produced, and of course that would affect the oxygen-carrying capacity, but it is so slight that it can be disregarded.

R. P. AUSTIN, M.D.: I think in patients who had cyanosis I got poorer results than in those who were not cyanotic, regardless of the dose.

RALPH R. MELLON, M.D.: Theoretically, that ought to be the case, because when you get these toxic responses you tend to depress the natural resistance factors, whose function is to supplement the action of the drug on the bacterium.

RALPH U. LESER, M.D. (Indianapolis): There has been a discrepancy in the reports in the literature as to whether or not agranulocytosis or leukopenia have been developed. Have you had any results with sulfathiazole in agranulocytosis or leukopenia?

RALPH R. MELLON, M.D.: No. I would not say it could not occur, but I should expect the chances to be much less with sulfathiazole because of its lessened toxicity. You get practically no cyanosis unless you have a patient who is very susceptible to the drug. Occasionally, however, there is one in which a five-grain tablet will cause severe nausea and vomiting. But we do not see much cyanosis, and unless they have that sort of tendency naturally we would certainly expect it to be much less with sulfathiazole than with sulfanilamide.

INDICATIONS FOR CESAREAN SECTION*†

NICHOLSON J. EASTMAN, M.D.
BALTIMORE, MARYLAND

During the past twenty-five years the incidence of cesarean section in the maternity hospitals of the United States has increased more than fivefold. For example, at the Chicago Lying-In Hospital, during the year 1915-16, one baby in 162 was delivered by the abdominal route, while in 1928-29, one in thirty-three was delivered in this manner; during a more recent period, between 1931 and 1934, the operation was used still more frequently, the incidence rising to one cesarean section in 17.8 deliveries. Our experience at the Johns Hopkins Hospital has been similar; thus, between 1900 and 1904 one woman in sixty-six was delivered by cesarean section; ten years later, between 1910 and 1914, one in thirty-four; between 1920 and 1924 one in twenty-three; while during the present decade the frequency has risen to one in 17.8, a figure identical with the Chicago incidence. To be sure, maternity hospitals receive most of the complicated cases in the neighboring vicinity and the incidence of the operation in such institutions is not representative of the country at large. If, however, we correlate the total number of cesarean sections done in a representative community with the total number of births, both home and hospital, it would appear that the incidence of the operation the country over is not below 2.0 per cent, or one in fifty deliveries, a figure much higher than that which a quarter of a century ago prevailed in maternity hospitals.

The operation of cesarean section is about seven times more dangerous than normal delivery. Consider, for instance, the survey made by Lull a few years ago of the mortality following cesarean section in various large cities. Among 4,975 operations, representing all the cesarean sections which were performed over a certain period in Cleveland, Brooklyn, Los Angeles and Philadelphia, there were 315 maternal deaths, giving the startling mortality of 6.3 per cent. Other figures, it is true, are somewhat lower; Lynch, in a study of 12,955 cesarean sections performed since 1930, found a death rate of 4.1 per cent. Even this figure, however, is more than twice that reported for other major operative procedures such as hysterectomy, cholecystectomy, gastro-enterostomy, thyroidectomy, etc.

Moreover, following cesarean section, the operator's responsibility is by no means terminated when

* Presented before the second General Meeting of the Indiana State Medical Association at the French Lick session, October 31, 1940.

† From the Department of Obstetrics, Johns Hopkins University and Hospital.

RISE IN INCIDENCE OF CESAREAN SECTIONS AT JOHNS HOPKINS HOSPITAL

Year	Total Deliveries	Total Cesareans	Incidence of All Cesareans Per Cent	Deliveries Per Cesarean
1900-04	1,146	17	1.5	66.6
1905-09	1,743	28	1.6	62.5
1910-14	2,270	68	3.0	33.3
1915-19	2,889	78	2.7	37.0
1920-24	3,659	158	4.3	23.2
1925-29	5,541	208	3.7	27.0
1930-34	5,710	292	5.1	19.6
1935-38	5,024	288	5.7	17.5

RISE IN INCIDENCE OF CESAREAN SECTIONS AT CHICAGO LYING-IN HOSPITAL

Year	Total Deliveries	Total Cesareans	Incidence of All Cesareans Per Cent	Deliveries Per Cesarean
1915-16	2,430	15	0.6	162.0
1916-17	2,134	20	0.9	106.7
1917-18	2,895	32	1.1	90.5
1918-19	3,393	42	1.2	80.8
1919-20	3,268	43	1.3	76.0
1920-21	3,362	46	1.4	73.1
1921-22	3,683	65	1.8	56.7
1922-23	3,886	78	2.0	49.8
1923-24	4,042	100	2.5	40.4
1924-25	4,312	119	2.8	36.2
1925-26	4,350	119	2.7	36.6
1926-27	4,307	113	2.6	38.1
1927-28	4,658	128	2.7	36.4
1928-29	4,603	139	3.0	33.1
Total	51,323	1,059		
1931-34	8,871	500	5.6	17.8

his patient leaves the hospital, for he has made her a permanent obstetric cripple whose uterine scar may rupture in subsequent pregancies with fatal results, and he is responsible, at least morally, for her obstetric future. The scar is always a hazard as long as the patient is able to conceive and must be regarded as a potential late risk superimposed on the immediate operative hazard of the procedure.

When we consider the increasing number of cesarean sections which are being performed in this country, and the high maternal mortality, immediate and remote, associated with the operation, it becomes plain that the indications for the procedure must always be weighed with meticulous care before the final decision is reached. The common conditions which, under certain circumstances, may be indications for cesarean section, fall into four main groups:

I. Disproportion between child and birth canal:
   (a) Contracted pelvis
   (b) Excessive size of child
   (c) Neoplasms blocking birth canal
II. History of previous cesarean section.
III. Placenta previa and premature separation of placenta.
IV. Non-convulsive toxemias.

It is obvious that this list, which proceeds from contracted pelvis to placenta previa and on to the toxemias of pregnancy, runs very nearly the whole gamut of obstetrics, and, in the time at our disposal, it is clearly impossible to review—even superficially—these many important conditions. Accordingly, with your permission, I shall limit my remarks to a few practical maxims related to these several indications. If these maxims seem dogmatic and arbitrary, I ask your indulgence; they are necessarily terse for reasons of brevity.

1. Beware of recommending cesarean section on the basis of external pelvic measurements. The two commonly employed transverse measurements of the inlet, the intercrestal and the interspinous, measure the false pelvic basin, you recall, and have no constant relationship to the diameters of the true pelvic cavity. They evaluate pelvic type, not size. Most fallacious of these external measurements is the external conjugate, or, as it is sometimes called, Baudelocque's diameter; most fallacious because the notion is widespread that this diameter is related to the antero-posterior diameter of the true pelvis. Let us consider the value of this procedure. When Baudelocque recommended the measurement some 120 years ago, he believed that this diameter was in the same plane as that of the obstetrical conjugata and, as it were, represented simply a linear extension of the conjugata vera anteriorly through the symphysis pubis and posteriorly through the sacrum. Accordingly, in order to estimate the obstetrical conjugata vera, he advised that a figure representing the thickness of the pubis plus that of the sacrum be subtracted from the external conjugate. On the basis of measuring thirty-three pelves at autopsy he stated that the figure to be subtracted was 8 cm. It has been known for many years that the external conjugate is not in the same plane as the conjugate vera. This fact alone annuls the theoretical basis of Baudelocque's conception. More important is the fact that the thickness of the sacrum and pubis is not constant but shows the greatest variation. As a result of these two sources of error, the amount to be subtracted from the external conjugate to give the conjugata vera is not constantly 8 cm., but as shown by many authors, ranges from 4 to 13 cm.

In view of these facts it is possible for a woman to have a marked diminution in the external conjugate measurement with a normal obstetrical conjugate and, on the other hand, she may have a normal external conjugate with a substantial degree of inlet contraction. Many are the unnecessary cesarean sections done because of reductions in this diameter. At best a shortening in the external conjugate should be regarded simply as a hint to carry out internal measurements with particular care.

Much more dependable is the diagonal conjugate diameter, that is, the distance from the under margin of the symphysis pubis to the sacral promontory. Despite opinion to the contrary, this

measurement can usually be carried out easily and without discomfort to the patient, particularly if done between the sixth and seventh months when the soft parts have become more elastic. If this measurement is over 11.5 cm., the pelvic inlet can ordinarily be dismissed as normal. If it is under 11.5 cm., the pelvis is contracted, and if below 11.0 cm. it may possibly give rise to dystocia. In the presence of definite contraction, as shown by this measurement, x-ray pelvimetry, which yields precise knowledge of all pelvic diameters, is of the utmost value. The simple method of Thoms can be carried out in any hospital with an x-ray apparatus. And is this asking too much of the one white woman in twenty in whom the diagonal conjugate will be found to be less than 11.5 cm.? Is not complete assurance about the status of our questionable obstetric cases as important as that of our fracture cases in which x-rays are almost routine? The cost of the two plates necessary for Thoms' pelvimetry is $2.50.

2. Never recommend cesarean section simply on the basis of a prolonged labor. About fifty years ago, in 1887, there lived a Philadelphia statistician named Harris, who collected as a matter of interest a number of instances in which pregnant women on the western plains had been gored in the abdomen by infuriated bulls and the uterus ripped open. He called this "Cattle-horn cesarean section" and reported nine cases with the recovery of five mothers. During the same period there were twelve cesarean sections done in the hospitals of New York City with the recovery of only one mother. This paradox Harris explained on the grounds that the women on the plains were not exhausted and infected by long labor and multiple vaginal manipulations as were the women in the New York hospitals. Their "cesarean sections" were done early, as it were, and so the majority escaped the toll paid by their sisters in New York where the operation was done as a last resort. Subsequent events have tended to substantiate Harris' allegation in regard to the danger of late cesarean section and today it would be no exaggeration to say that cesarean section done by the clumsiest novice before the beginning of labor or at the onset of labor is safer than the most skillful classical cesarean section done late in labor after multiple vaginal manipulations. Late cesarean section is the main reason for the high mortality of the operation in the United States for, with every hour of labor, the danger from the procedure increases. Moreover, the most common cause of prolonged labor is not contracted pelvis but uterine inertia and uterine inertia is not an indication for cesarean section. Always remember that the most important single factor in labor is *time* and time will take care of most cases of uterine inertia.

3. Never recommend cesarean section on the basis of uterine fibromyomata unless one is actually blocking the pelvis when labor starts. Although fibroid tumors of the uterus occasionally produce abortion, sometimes cause uterine inertia, and on rare occasions predispose to puerperal infection through interference with lochial drainage, they rarely are responsible for mechanical dystocia. Even though a fibroid seems to block the pelvic canal early in pregnancy, it is usually drawn upward and out of the pelvic cavity as the uterus grows. Ovarian cysts are much more likely to cause difficulty than fibroids. They frequently undergo torsion of the pedicle during pregnancy, not uncommonly block the birth canal by prolapsing into the pelvis and during the puerperium occasionally suffer necrosis as the result of the general pelvic ischemia. In other words, fibroids are rarely an indication for cesarean section because they seldom cause dystocia; although ovarian cysts are a more common cause of difficulty, this complication is best met by removing the ovarian cyst as soon as the diagnosis is made rather than by cesarean section.

4. If a woman has had a previous cesarean section, she must be hospitalized for delivery and in the hands of a competent obstetric surgeon. With the increasing use of cesarean section, the integrity of the uterine scar in subsequent pregnancies is rapidly becoming one of the most common—as it is certainly one of the most difficult—problems faced by the practitioner. If the indication for the previous cesarean section is still present, as it would be, let us say, in contracted pelvis, another cesarean section is naturally required. If, however, the original operation was done for some condition which is no longer present, such as placenta previa, then the best method of delivery in the present pregnancy will depend on the strength of the scar; in other words, will it rupture? The frequency with which cesarean section scars rupture in subsequent pregnancies and labors has been variously estimated and would appear to range between 5 and 10 per cent. The scar may rupture in the present pregnancy even though it has stood the test of one or more spontaneous deliveries in the interim since the original operation. The cesarean section scar, therefore, is never to be trusted completely no matter how well it may have behaved in the past. Hence, it is true that in most of these women another cesarean section is usually advisable, but if the puerperium after the original operation was afebrile and if the skin wound healed by first intention, we have reason for believing that the uterine wound also healed aseptically with a strong union. Under such circumstances, if the present baby is not excessive in size and if there is no hydramnios (conditions causing unusual tension on the scar), vaginal delivery may be the more judicious course. Statistics indicate that the scar following low cervical cesarean sections is less likely to rupture than the classical incision. And, in general, it is true that the higher the old incision, the greater the likelihood of rupture in subsequent pregnancies. For instance, incisions made half above

and half below the umbilicus are, in my experience, particularly prone to this accident and I routinely recommend cesarean section following this type of operation. In any event, this whole group of cases presents a perplexing problem with grave potentialities and hospitalization with expert obstetric supervision is imperative.

5. If a woman has painless vaginal bleeding in the last trimester of pregnancy and lives within twenty miles of a hospital, do not carry out vaginal examination, do not pack the uterus, but take her to the hospital—together with husband, relatives, neighbors and friends—as fast as possible. The severer grades of placenta previa and premature separation of the placenta are best treated by cesarean section, but if the patient has been infected by unclean vaginal examinations or packing, the hazard of the operation is so much increased that other less desirable methods of treatment have to be resorted to. Indeed, between the two evils, it is better to bring a woman into the hospital bled out, than infected; blood transfusion will usually remedy the former condition but there is often no cure for the latter. Moreover, vaginal examination in placenta previa is likely to precipitate torrential hemorrhage and should be done only when full equipment is at hand to meet any eventuality. The husband, relatives, neighbors and friends will be needed for possible blood donors. As far as I know, this is the only circumstance in which relatives and friends are really welcome in a hospital.

6. Never recommend cesarean section in eclampsia. The late Dr. J. Whitridge Williams used to speculate on the fate of parturient women who, despite some major complication, were without benefit of medical attendance and were forced to deliver themselves as best they could without help. He believed that the gravest outcome awaited those with advanced degrees of contracted pelvis, while almost as serious a prognosis would have to be made in the severer forms of placenta previa and premature separation of the placenta. Those who would suffer least because of absence of medical attention were, in his opinion, women with eclampsia. As the result of special circumstances existing in China, where I had the good fortune to work some years ago, the opportunity presented itself to follow throughout their course several cases of eclampsia in which the patients' relatives —for reasons of their own—refused all forms of treatment. I have seen these Chinese women lie for days in coma, suffer an untold number of convulsions and finally deliver themselves spontaneously after the head had been in sight for hours. Meanwhile, let it be remembered, these women were virtually untouched. I have followed four such cases and seen four mothers recover. In our hospital in Peking where some 100 eclamptic women were treated with all the refinements of modern obstetrics, the maternal mortality was 17 per cent. By citing these facts I do not mean to advocate a policy of therapeutic nihilism in eclampsia, but wish simply to recall that this disease, like many others, shows a strong tendency to spontaneous abatement, provided the patient is not killed by obstetric trauma. In the early years of this century, between 1910 and 1915, eclampsia was treated at the Johns Hospkins Hospital either by cesarean section or accouchement forcé. The maternal mortality was 26.1 per cent; between 1910 and 1922 some cases were treated by cesarean, others by medicinal regimes; the mortality was 17 per cent. Since 1922, over 400 cases of eclampsia have been handled without the use of cesarean section or any attempt to hasten delivery. The patient is given sedatives, is digitalized, is kept quiet, protected against self-injury; and labor, which usually sets in, is allowed to take its course. Under this medicinal regime the mortality is 11 per cent. Statistics the world over confirm our experience and are unanimous in showing that cesarean section carries with it a 25 to 33 per cent mortality in eclampsia. In other words, it kills eclamptic women in a quarter of the cases. Indeed, these patients stand all kinds of stimulation poorly; the introduction of a stomach tube usually causes a convulsion; a venepuncture often does. Sedatives, digitalization, darkness and quiet remain our most dependable allies in eclampsia and should be violated only under extraordinary circumstances.

In conclusion, although the title of this talk was "Indications for Cesarean Section," its subject-matter has dealt largely with contra-indications. This was intentional, in the sincere conviction that our high mortality from cesarean section will be reduced only when we pay more attention to contra-indications and less to indications.

MENINGIOMA OF CHOROID PLEXUS

A CASE REPORT

R. DEAN WOOLSEY, M.D.
ROLAND M. KLEMME, M.D.
ST. LOUIS, MO.

Tumors of the choroid plexus are rare. Cushing[1] placed their incidence at .5% after reviewing his first 900 verified brain tumors in 1922 and again in 1931 in a resume of 2000 cases. All these were pathologically diagnosed as papillomata of the choroid plexus. Van Wagenen[2] reported a collected series of forty-five similar cases in 1930 and added two cases of his own.

Reported instances of intra-ventricular tumors of other types are of even greater rarity than the above mentioned papillomata. Gardiner[3] in 1933 reported three fibroblastomas of the lateral ventricles. Lyerly[4] in 1938 reported two meningiomas of lateral ventricles. A few isolated cases of psammoma of the choroid plexus have been reported mostly in the foreign literature. Others have spoken of meningiomas[5,6,7,9] and ependymomas[8] all arising from the ventricular lining and choroid plexus. It is evident that what is needed here is some agreement as to terminology. In reviewing the cases listed under intraventricular tumors, there are two predominant types. The first is the papillary tumor with greater or lesser degrees of malignancy and with a tendency to metastatic seeding of the ventricular system in the more malignant types. The other is the meningioma, psammoma, fibroblastoma, or call it what you will. Dr. Cushing and Dr. Eisenhardt have given a very lucid classification of these tumors in their book, Meningiomas. Microscopic appearances of this latter group of tumors seem to have considerable in common. Their appearance would seem to be more that of a tissue of mesoblastic origin than of ectodermal origin. The converse is true of the papillomas. The case hereby reported belongs in the meningioma group noted above which are the most infrequent of intraventricular tumors.

[1] Davis, L. E. and Cushing, H., Papillomas of Choroid Plexus. *Arch. Neurol. and Psychiat.* 1925, 13:681-710.

[2] Van Wagenen, W. P., Papillomas of Choroid Plexus. *Arch. Surg.* 1930, 20:199-231.

[3] Gardiner, W. J., and Turner, O. A., Primary Fibroblastic Tumors of the Choroid Plexus of the Lateral Ventricles. *S. G. & O.*, 1938, 66:804.

[4] Lyerly, J. G., Meningioma of the Lateral Ventricle. *Arch. of Neurol. and Psychiat.*, 1938, 40:997-1004.

[5] Fincher, E. F., Intraventricular Tumors of the Cerebrum. *South. Med. J.*, 1934, 27:667.

[6] Dandy, M. E., Benign Encapsulated Tumors in the Lateral Ventricles of the Brain. *Ann. Surg.*, 1933, 98:841.

[7] Lynn-Thomas, John, A Case of Epilepsy of 22 Years Standing Due to a Calcified Endothelioma of the Left Lateral Ventricle. *Brit. Jour. Surg.*, 1922, 9:490.

[8] Weinstein, E. A., Ependymomas, Arising from the Ventricular Lining and Choroid Plexus. *J. Mt. Sinai Hospital*, 1938, 5:573.

[9] Cushing, H. and Eisenhardt, L., Meningiomas. C. Thomas, Sprinfigeld, Ill., 1938.

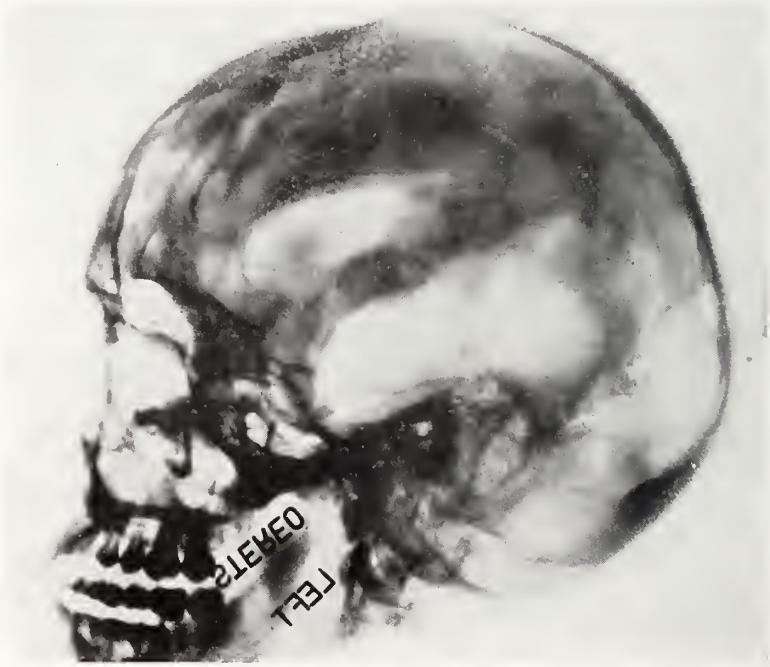


Fig. 1. (G.H.)—Preoperative X-rays. Lateral. Dilated ventricular system with intraventricular tumor shadow in region of choroid plexus.

Fig. 2. Posteroanterior. Ventricular system pushed to right small third ventricle. Dilated left lateral ventricle with filling defect in ventricle.

Fig. 3. (G.H.)—Post-operative Encephalogram. Ventricular system in midline no obstruction to either lateral ventricle.

REPORT OF CASE

G. H., age 28, was admitted to St. Luke's Hospital on October 16, 1938, with a chief complaint of light headedness. For four months before entering the hospital she had noted that when she would stoop over and then stand up straight she would feel "light headed," and she would have blurring of vision. She had no vertigo or diplopia but did have occasional headaches in the occipital area radiating down the back of her neck. She consulted an oculist who fitted her with glasses with some relief of symptoms. There was no history of paralysis, weakness, convulsions, nausea, or vomiting. During the past year, the patient had had a kidney infection and an appendectomy. Physical examination was negative throughout. Neurological examination revealed left pupil smaller than the right, and a small field defect at the lower temporal quadrant of the right eye. There was a symmetrical constriction of the red and green fields of the right eye, with moderate nasal deformity of red and green in the left field. The optic discs showed papilledema, three to four diopters, with a few small flame-shaped hemorrhages around the disc. Sensation was intact over the area of the fifth nerve, with exception of slight hypesthesia of the left cornea. The lower jaw opened with slight deviation to the left. There was central paralysis of the right seventh nerve. The tongue protruded slightly to the left without tremor. Examination of the motor and sensory systems was negative. The reflexes were normal throughout; there was a suggestive Babinski on the right side. A ventriculogram (Figs. 1 & 2) was done on October 19, 1938, and immediately followed by craniotomy. The x-ray plates showed the ventricular system to be pushed to the right, a small third ventricle and an enormous lateral ventricle on the left. A left occipital parietal flap was turned down in the usual manner, and the dura was found to be quite tense. Pressure was relieved by ventricular puncture. The cortex was incised behind the parietal lobe, and an intraventricular tumor about the size of a lemon and with the consistency of cartilage was found to be attached to the medial wall of the left ventricle behind the foramen of Monro and incorporating the choroid plexus. Blood vessels leading to the tumor were coagulated and cut, and the tumor was enucleated from the ventricle. The wound was closed in the usual manner. The post-operative course was uneventful; the temperature was normal on the first post-operative day. The patient was discharged from the hospital on November 9, 1938. On February 24, 1939, she was readmitted to the hospital for study, and an encephalogram (Fig. 3) was done at this time. She had a partial residual aphasia and some paralysis on the right side, both of which have cleared

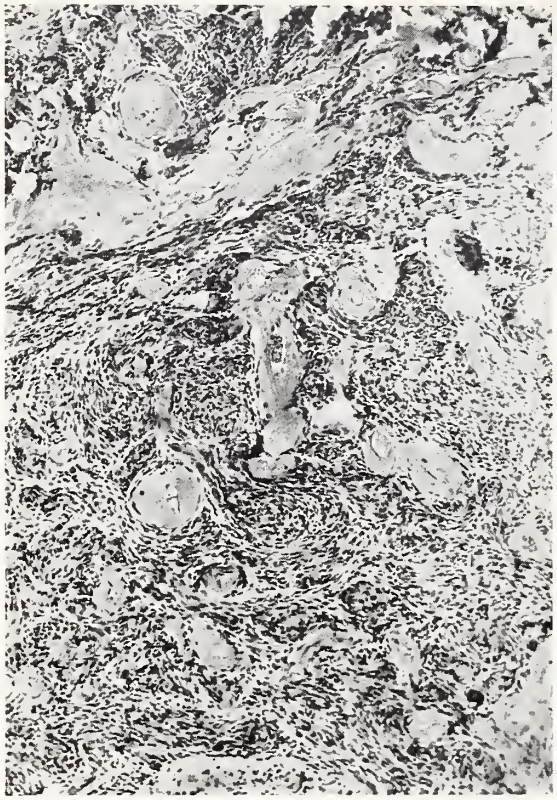


Fig. 4. Photomicrograph, low power, representative section of tumor. See text for description.

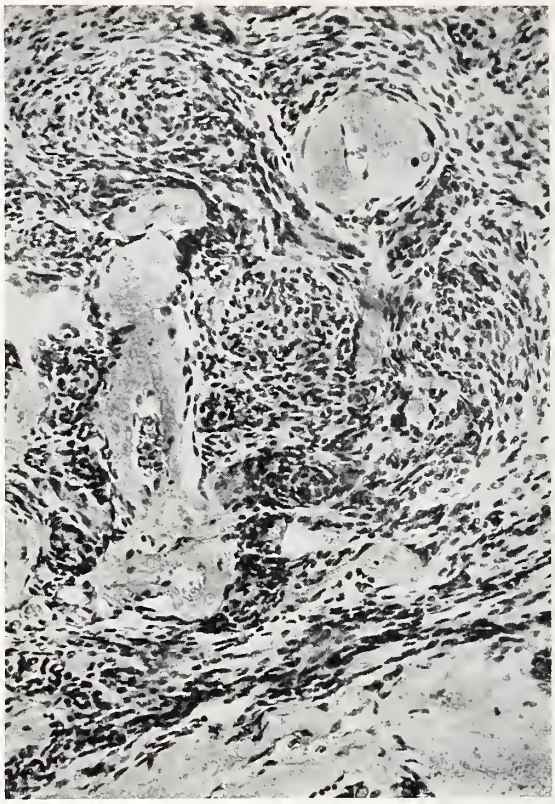


Fig. 5. Photomicrograph high power view. See text for description.

markedly since discharge from the hospital. There was a partial right homonymous hemianopsia.

Pathological Report: Mass measured 5 x 3 x 3 centimeters. At one pole there was a hard glistening round area which on surface inspection looks like cartilage. On section the entire mass was found to be solid and opaque. Microscopic examination: this is a fibroblastic tumor without mitoses and with numerous small sclerotic arteries scattered throughout (See Figs. 4 & 5). Some of these contained calcified material. Additional sections made with Van Gieson stain: cell areas which resemble fibroblasts stained yellow to brown. Diagnosis: Meningioma.

COMMENT

An intraventricular tumor of the uncommon type has been presented. This patient had an operative recovery from an intraventricular tumor without the usual post-operative rise in temperature. She was left with a right homonymous hemianopsia, moderate aphasia, and an occasional mild convulsive seizure, all of which are clearing rapidly. Post-operative x-rays show the ventricular system to be regaining a somewhat normal contour. We are unable to cite any typical picture of intraventricular tumors either from the literature or from our own experience. We have been impressed by the varied terminology used in speaking of this uncommon variety of tumor.

YOUR DUES ARE DUE!

PAROXYSMAL AURICULAR TACHYCARDIA COMPLICATING PREGNANCY*

J. S. BROWNING, M.D.
C. J. CLARK, M.D.
INDIANAPOLIS

The occurrence of sudden severe tachycardia in pregnant women during the third trimester is an alarming event. This is especially true if the patient is anemic. There is a tendency to be misled into believing that heroic surgical measures should be employed to terminate the pregnancy because the clinical pictures may closely simulate rupture of the uterus, internal hemorrhage, or other complications. If the attack of paroxysmal tachycardia is terminated, relief is almost immediate to the patient, family, and physician.

The presence of this disturbance in pregnancy is apparently rare. Jensen[1] in a comprehensive review of the literature was able to collect only nineteen cases in which the diagnosis was beyond reasonable doubt, and he added one of his own. Carr and Hamilton[2] saw it seven times among 500 cases of heart disease in pregnancy and they believe it occurs in about one per cent of all pregnant women. Laennec[3] considered it rare, having seen it only three times in 172 pregnant cardiac patients. The two cases here reported are the only ones we have seen complicating pregnancy.

The cause of the condition is unknown. In the nineteen cases reviewed by Jensen,[1] eight had valvular disease, usually mitral stenosis, while eleven showed no evidence of organic heart disease. It may be associated with, or precipitated by, quick movements of the body, emotion, dreams, effort, fatigue, indigestion, tobacco, alcoholic intoxication, digitalis intoxication, infection, disturbance of the genital organs, organic heart disease, anemia, and in many cases no precipitating factor can be determined. Most of the cases give a history of attacks antedating pregnancy.

The symptoms may be divided into subjective and objective. In the first, the patient may complain of one or more of the following: palpitation, nervousness, gaseous distention, nausea and vomiting, angina-like pain. The second group includes rapid heart rate, ranging usually from 150 to 250 with an average rate of about 170. The systolic pressure usually falls and the diastolic rises with a decidedly low pulse-pressure occasionally as low as 6 to 8 mm. of mercury. It is this circumstance that accounts for the frequent occurrence of peripheral thrombosis, occasionally necessitating amputation of an extremity. In cases that are not quickly relieved it is not uncommon for congestive heart failure to supervene. Fever and leukocytosis occasionally occur which may confuse the diagnosis with coronary thrombosis.

The chief diagnostic feature of this condition, other than the symptomatology just described, is a perfectly regular rhythm. By this is meant that continuous heart cycles will not vary more than 0.01 second in length and can best be demonstrated by the electrocardiogram. This serves to differentiate it from paroxysmal ventricular tachycardia, auricular flutter and fibrillation. The rate in this condition is very fixed for long periods of time and cannot be altered by the simple procedures, such as breathing or exercise which will affect the normal heart rate. Usually this condition can be diagnosed at the bedside without the aid of an electrocardiogram, by the foregoing criteria.

The treatment of auricular tachycardia may be divided into two parts: the first, stopping the attacks and the second, preventing their recurrence. One effective method of stopping the attacks is some form of vagus stimulation. This is accomplished by initiating the vomiting reflex with ipecac (Weiss[4]), or vagus stimulation through ocular pressure (Levine[5]), carotid sinus pressure (Levine[5]), or injection of mecholyl, a powerful vagus stimulator (Starr[6]). Occasionally large doses of digitalis will stop an attack but this drug is more effective in preventing the recurrence of the attacks.

Quinidine has been used occasionally to stop the attacks, but more often to prevent their recurrence. It is commonly believed to initiate labor. Meyer[7] in 1930 cautioned against using it during pregnancy. However, according to Sollmann,[8] quinine has little or no effect on the uterus, unless labor pains have started. It does not induce premature labor. Abortion has sometimes followed toxic doses, possibly as a manifestation of the general toxicity rather than through any direct uterine

[1] Jensen Text Book: The Heart in Pregnancy, 1938, C. V. Mosby Co., St. Louis, page 97.

[2] Carr, F. B. and Hamilton, B. E.: Paroxysmal Tachycardia in Pregnancy, *Amer. Journ. Obstetrics Gyn.*, 26: 824:1933.

[3] Laennec, T. H.: Cardiopathies mitrales et gestation, These, Paris—1930.

[4] Weiss, S., and Sprague, H. B.: Vagus Reflex Irritability and Treatment of Paroxysmal Auricular Tachycardia with Ipecac, *Amer. Journ. Medical Science*, 194: 53-63: July, 1937.

[5] Levine: Clinical Heart Disease—1936, page 217, 217, Philadelphia.

[6] Starr, I. F. Jr.: Acetyl Beta Methylcholine, Further Studies of Its Action in Paroxysmal Tachycardia, *Amer. Journ. Medical Science*, 191: 210-225; Feb., 1936.

[7] Meyer, Jacob: Lackner, Julius E., and Schochet, Sidney S.: Paroxysmal Tachycardia in Pregnancy, *J.A.M.A.*, 94:1901-1905; June 14, 1930.

[8] Sollmann: Text Book on Pharmacology, Saunders, Fifth Edition, page 565 and 577.

[9] Mitchell, D. A., and Bradwake, H. M.: Further Experience in Use of Quinine in Normal Labor, *British Medical Journ.*, Vol. 2, August 3, 1935, page 206-208.

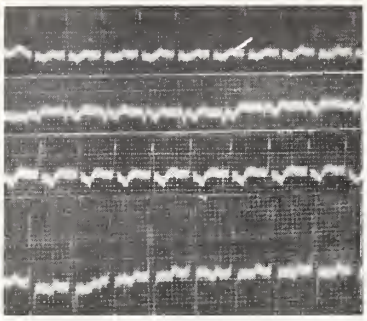


Figure 1

action. It will, however, intensify weak labor pains. Since the action of the various cinchona alkaloids are similar, it may be assumed that quinidine would act much as does quinine. Mitchell[9] says that neither phamacologists nor clinicians claim that quinine is a reliable or even effective initiator of uterine contractions but rather a tonic to already initiated contractions.

REPORT OF CASES

Case 1: Mrs. M. M., age 33, a multipara at term, was admitted at 1:45 a.m., in active labor. Her pulse was 92, B.P. 145/95 mm Hg. A normal delivery occurred two hours later and on return to the ward her pulse was 116. The next morning her pulse was 160 but she had no complaints. The rate gradually slowed within 48 hours to 95. However, about 60 hours postpartum, at 8:00 a.m., she complained of severe palpitations and slight dyspnea. The radial pulse was 180, rhythm regular, B.P. 110/80 mm Hg. marked pallor. She stated that she had had frequent similar attacks but none of this severity. An electrocardiogram (See figure 1) confirmed the diagnosis of paroxysmal tachycardia of either nodal or auricular origin. It also showed inversion of the T wave in all four leads with upright Q4 and electrical pulsus alternans in lead 4. Her Kahn and Kline tests were negative, hemoglobin 59 per cent, red blood cells 2,840,000. Attempts to stop the attack through vagus stimulation by ocular pressure, carotid sinus pressure and vomiting by syrup of ipecac were useless. She was then given three grains of digitalis every four hours for six doses. Shortly after taking the sixth dose the pulse dropped to 110 and next morning was 70. She was given a

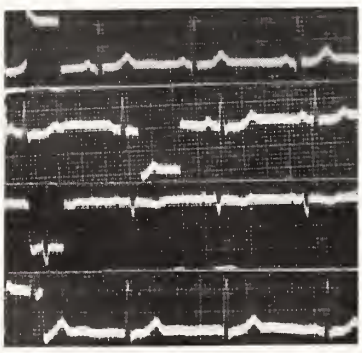


Figure 2

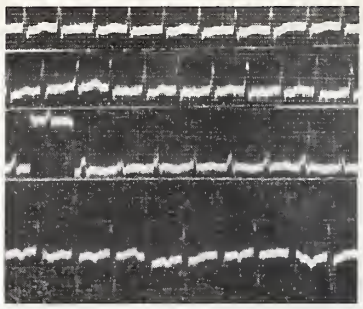


Figure 3

maintenance dose of 1½ grains of digitalis daily. The rest of her hospital stay was uneventful. Reexamination three weeks later revealed no evidence or organic heart disease as shown by physical examination and normal electrocardiagrams (see figure 2).

Case 2: Mrs. M. C., age 37, multipara at term, was admitted at 11:20 a.m. on December 27, 1939, complaining of palpitation and dyspnea. Three days previous she was awakened at night by severe pounding of her heart and shortness of breath which persisted until admission. She had had similar attacks since childhood which usually subsided in about one-half minute or less. The patient had evident orthopenea, marked pallor, pulse 200, regular rhythm, B.P. 110/80. The electrocardiogram (figure 3) confirmed the impression of paroxysmal tachycardia of either auricular or nodal origin, rate 200, inverted T 1 and 4, notched QRS 3, upright Q4 and electrical pulsus alternans in lead 4. Hemoglobin was 38 per cent, red blood cells 2.25 millions. Attempts to stop the attack by ocular pressure, carotid sinus pressure and syrup of ipecac were unavailable. Several hours later, she was beginning to show signs of congestive failure (i.e., marked dyspnea, cynosis and rales in lung bases) and the changes in the electrocardiogram suggested severe myocardial damage. We saw the patient at this time and decided to use quinidine sulphate. At this time the fetal heart could not be heard. At 9:00 a.m., December 28, a test dose of three grains of quinidine was given with no untoward effects. Beginning at 2:00 p.m. she received six grains every 2 hours for 3 doses, making a total dosage of twenty-one grains. Within a very short while after the last dose of quinidine, the tachycardia subsided, the rate being at that

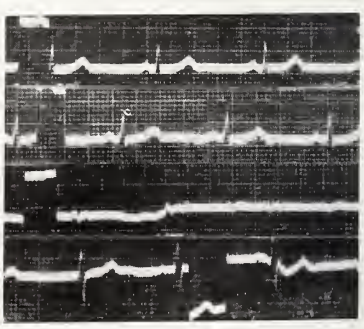


Figure 4

time 80 with never any evidence of precipitated labor. On December 29, 1939, she received a 500 cc. citrate blood transfusion which was repeated on January 3, 1940. Labor began on January 4, and a normal delivery of a living fetus occurred on the same day. She had a normal convalescence and was released on January 14, 1940, with no apparent evidence of organic heart disease, as was shown by a physical examination and normal electrocardiogram. (See figure 4.)

COMMENT

In view of the common conception that quinine and associated alkaloids may precipitate or initiate labor, we believe it is important to point out that there is no adequate evidence to support this belief. A valuable drug which has hitherto been discredited thus may be employed in the treatment of paroxysmal auricular tachycardia in pregnancy, whose only contraindication is idiosyncrasy. Most attacks can be terminated by vagus stimulation through ocular or carotid sinus pressure. If these fail, as they did in our cases, subcutaneous injection of 20 mgs. of acetyl-betamethylcholine has terminated attacks. Case 1 illustrates the effect of large doses of digitalis in terminating an attack of paroxysmal auricular tachycardia, and Case 2 demonstrates the efficiency of quinidine.

The impression that severe cardiac damage, that may be gained from the electrocardiograms, for example, electrical pulsus alternans and inversion of the T waves, is probably only evidence of fatigue.

Many complications of pregnancy which require surgical intervention with reference to internal hemorrhage, premature separation of the placenta, etc., may closely resemble auricular tachycardia.

SUMMARY AND CONCLUSIONS

1. Two cases of paroxysmal auricular tachycardia complicating pregnancy are reported.

2. The incidence of this condition in pregnancy is rare, occurring in less than one per cent of known cardiacs and much less in otherwise normal persons. The history of previous attacks should warn of recurrence during pregnancy.

3. Paroxysmal auricular tachycardia usually occurs in otherwise normal hearts.

4. Quinidine is an effective drug in stopping attacks of paroxysmal auricular tachycardia and may be used in pregnancy without fear of precipitating premature labor.

5. Electrocardiographic evidence of myocardial damage is often unreliable, because it may represent merely cardiac fatigue.

ABSTRACTS

BETTER NOT TO USE RADIUM AND RADON THAN TO EMPLOY THEM IMPROPERLY

Unless radium and radon are properly used in diseases in which these agents are indicated, it is better not to use them, Anthony C. Cipollaro, M.D., New York, declares in *The Journal of the American Medical Association* for Dec. 7 in an article on "Dangers Incident to the Indiscriminate Use of Radium Compounds or Radon in the Treatment of Skin Diseases." Publication of the article is authorized by the Council on Physical Therapy of the Association.

"Proper treatment of a lesion," Dr. Cipollaro says, "no matter how trivial, with an agent so potent as radium or radon requires exact diagnosis and judgment for the selection of the correct dose and technic applicable to the disease. This, of course, means specialized training and knowledge of general dermatology and of that specialized phase of radiology which pertains to dermatology."

The doctor condemns the practice of those distributors who sell or rent radium or radon and whose medical and physical experts give diagnosis and aid and suggest treatment without seeing the patient.

"It is alleged," he says, "by some that the curtailment of the widespread distribution and use of radium and radon may deny to some the use of this valuable agent. In my opinion this allegation is not true when it is considered that radium or radon when improperly used can cause damage to the tissues and to the patient that may prove to be far more serious than the original condition. In fact the overtreatment with radium or radon can lead to cancer formation. The mere availability of radium or radon does not compensate for the disastrous results following improper treatment.

"Radium and radon should not be rented or sold to persons who are not qualified to use them, because this practice encourages diagnosis and treatment by mail or telephone by an individual who possesses radium or by a corporation engaged in the sale and rental of radium."

Some of the irreparable damages that may result from the improper use of radium or radon, Dr. Cipollaro points out, are destruction of normal tissue, spread of cancer, permanent skin changes such as scars, and radiodermatitis, a condition involving inflammation of the skin which in severe cases often progresses to ulceration.

VITAMIN B_1 DEFICIENCY AND DIABETES

A symmetrical peripheral neuropathy resulting from vitamin B_1 deficiency was found in nine, or 2.1 per cent, of 422 diabetic patients, Harry D. Fein, M.D., Elaine P. Ralli, M.D., and Norman Joliffe, M.D., New York, report in *The Journal of the American Medical Association* for Dec. 7. Administration of vitamin B_1 by mouth resulted in a cure of eight patients and improvements in the ninth.

Their findings were made in a study conducted to determine the incidence of the nerve ailment due to vitamin B_1 deficiency in a large group of diabetic patients and the response to specific treatment.

Pointing out that the diets prescribed for all of these patients were considered adequate as to the vitamin B_1/calory ratio, the three physicians say that "substitution of foods poor in vitamin B_1 but containing equivalent carbohydrate and caloric values for prescribed foods richer in vitamin B_1 is common in all groups of diabetic patients. This was especially true in our patients because of their poor economic condition. In view of this it is surprising that a peripheral symmetrical polyneuropathy developed in but 2.1 per cent of the patients."

They point out, however, that there are several other possible contributory factors, the most important of which they believe to be arteriosclerosis. This vascular inadequacy, the three physicians say, may require a higher concentration of thiamine or vitamin B_1 in the blood, to provide sufficient vitamin to the nerves, than in subjects with normal arteries.

Among the other possible factors they mention is the polyuria accompanying glycosuria which, if persistent, may cause an increased excretion of vitamin B_1 in the urine, rendering it less available for use by the body.

SEDIMENTATION RATE OF RED BLOOD CELLS: A SIMPLE OFFICE PROCEDURE

WITH SOME OBSERVATIONS FROM 1000 CONSECUTIVE OFFICE TESTS

GORDON B. WILDER, M.D.
ANDERSON

The purposes in mind in presenting this article are twofold: First, to impress upon that great body of medical men known as "general practitioners" the fact that a simple, reliable test can be done in the office by the doctor or his assistant with very simple and inexpensive equipment and with no loss of time during the course of the routine office examination; and, second, to call attention to some clinical observations from 1,000 consecutive tests done in our office.

A SIMPLE OFFICE TEST

While the estimation of the sedimentation rate of the red blood cells is a valuable test in laboratory and clinical medicine, it has not been as widely used by the general practitioner as its usefulness warrants. This is perhaps due to the fact that the test is looked upon as a difficult technical procedure to be done only in the hospital or laboratory.

Drs. Bannick, Gregg and Guernsey,[1] of the Mayo Clinic, have called attention to the adequacy of a simple test.

Doctors Cutler, Park and Herr[2] in their article on the influence of anemia on blood sedimentation have shown that anemia has little to do with the phenomenon of blood sedimentation and that, therefore, the correction for anemia is not necessary for all practical purposes.

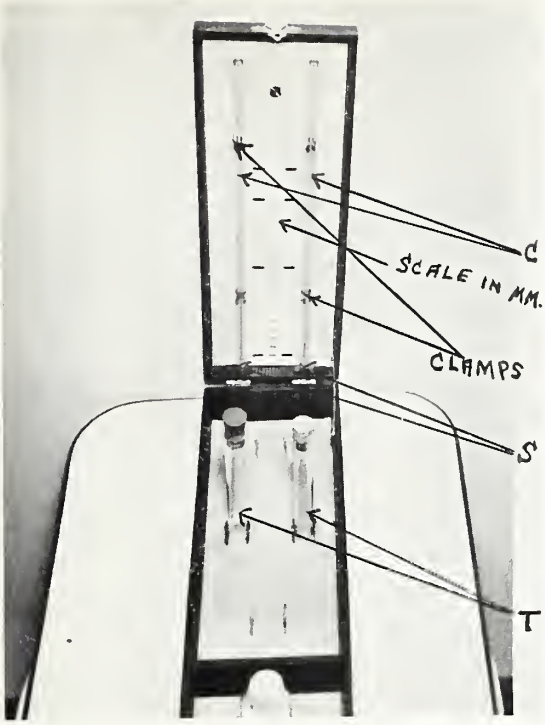
The test referred to above which was described by Doctors Bannick, Gregg and Guernsey in their article employed the use of a modified Westergren test and was as follows: "Five-tenths cc. of a 3.8 per cent solution of sodium citrate in distilled water is placed in a tube and to this is added 4.5 cc. of blood that has been drawn from a vein with as little stasis as possible. After the tube has been inverted several times to insure thorough mixing, a Westergren pipet is filled to the 200 mm. mark and placed in a rack in a strictly vertical position at room temperature. The height of the column of plasma is read at the end of one hour and reported in terms of millimeters of sedimentation in one hour." These men have also shown that, when the Westergren 200 mm. tube is used, one reading at the end of one hour is entirely satisfactory for all practical purposes.

In our tests we employ the simple apparatus supplied by the John Wyeth and Brothers, Inc., in connection with their Wyatt-Hicks Streptococcus Antigen for arthritis. A picture of this apparatus is shown in the accompanying cut and the technic, which is further simplified, is as follows: A few granules of sodium citrate are placed in one of the test tubes marked "T" in the illustration and tap water is added until the tube is about one-half full. The tube is inverted a few times until the granules of sodium citrate are all dissolved. This solution, which is of no definite or fixed strength, is kept in the tube until the test is ready to be run. We use only 2 cc. of venous blood which may be taken along with the blood for a Wassermann or any other blood tests which may be desired. Now the solution of sodium citrate is poured from one test tube into the other and enough of the solution remains on the inside of the tube to act as an anticoagulant for the 2 cc. of blood. The blood is now placed in the test tube which is inverted a few times to insure proper mixing with the sodium citrate and the blood is drawn up into the modified Westergren pipet to the circle on the tube, marked "C," the small rubber stopper, marked "S," is placed in the end of the pipet which is then put on the rack on the back of the case and held in place by the clamps as shown. The top of the column of blood which is at the circle on the tube is placed even with the zero marked on the scale between the two pipets. At the end of one hour the height of the column of cells, which is the line of separation of plasma from cells, is read on the scale and this is reported in millimeters of sedimentation in one hour. In succeeding tests the same solution of sodium citrate is used, simply transferred from one test tube to the other and may be used over and over until it is finally used up, or one feels that he should have a fresh solution which we have found should be at least once a week. After the test is finished the rubber stopper is removed from the pipet, the blood allowed to run out, the pipet cleansed by running water through it and replaced on the rack in readiness for the next test. There are two pipets in the outfit and this enables one to run two tests at one time if desired.

The practical value of the test is shown by observing some of the findings in this series of tests. We feel, as has been stated before, that the practical value of the test in general practice is threefold: (1) to indicate the presence of disease which may not be evident from a general examination; (2) to indicate the activity and progress of diseases such as tuberculosis, pelvic inflammatory disease, rheumatic fever, infectious arthritis, acute cholecystitis, pneumonia and other thoracic infec-

[1] Bannick, Edwin G., Gregg, Robert O., and Guernsey, Chester M.: The Erythocyte Sedimentation Rate, *J.A.M.A.*, **109**:16, 1257-1262 (Oct. 16) 1937.

[2] Cutler, J. W., Park, F. R., and Herr, B. S.: The Influence of Anemia on Blood Sedimentation, *Amer. J. Med. Sc.*, **195**:6, 734-751 (June) 1938.



tions and suppurations, Hodgkins' disease, acute febrile illnesses, and acute coronary thrombosis; and (3) to aid in differential diagnosis.

In the first place, to indicate the presence of disease the test is entirely nonspecific and must be properly interpreted lest it give a false sense of security. A normal rate does not mean that the patient has no disease. A normal sedimentation rate in a case in which the evidence points to a functional disorder gives the physician reassurance, as it does also in a case of questionably active tuberculosis, or a case of back pain when the patient is elderly and might have metastatic cancer.

On the other hand, when the rate is increased the physician can be certain that some abnormality exists. Pregnancy is the only physiological process which is accompanied by a significantly rapid sedimentation rate.

TABLE 1

Classification of 1000 Tests

	Sedimentation Rate, Mm. in 1 hour			
Sedimentation Rate	1-15	16-24	25-40	41-150
Number of Cases	372	238	182	208

From the Table No. 1, it will be seen that 372 cases, or 37.2% of our series of tests, fall in the 1-15 mm. column and this is what we consider as being a normal rate. The next column has 238 cases or 23.8% of the series and these cases might be considered as being borderline cases between the high limit of normal and the low limit of abnormal. In the third column, 25-40 mm., we have 182 or 18.2% of very definite but moderately elevated rates. And finally, in the last column, 41-150, (150 mm. was our highest test, a case of gonorrheal salpingitis) there are 208 or 20.8% which we considered as very high.

In some cases the physician may not be able to find the cause of the increased sedimentation rate but in such cases he should keep in mind that something is wrong with that patient and should keep in touch with him until the cause is found or the sedimentation rate returns to normal. This was brought out in our series by ten cases of early malignancy, in which no other symptoms were present at the first examination.

In the second place the sedimentation rate is very important as an aid in determining the activity and progress of certain diseases.

Of course the value of the test to indicate activity in pulmonary tuberculosis is well known. We think, in our series of cases, one of the most valuable aids along this line was in our cases of acute rheumatic fever and infectious arthritis. We feel this test is the most important guide we have as to when it is safe to let these patients start some activity. A number of our cases would be temperature free for two or three weeks but still have an increased sedimentation rate. These patients, we felt, should remain inactive until the rate approached normal. On the other hand, in a few cases of acute rheumatic fever where the rate returned to normal after a short period of two weeks or so, we started letting the patient up.

This test has also played an important part in the present day conservative treatment of pelvic inflammatory disease, and in a good number of our cases the sedimentation rate would remain high for as long as two or three weeks after the temperature had returned to normal. If these patients are kept in bed and under strict management until the rate returns to normal, a good many will escape recurrences or exacerbations. And with the newer methods of applying heat and artificial fever a vast majority of these patients will be so much improved that surgery is not necessary. If surgery does become necessary, if the surgeon waits until the sedimentation rate is nearly normal,

TABLE 2

Some Diseases or Conditions in Which Sedimentation Rate is Likely to be Increased.	*Some Diseases or Conditions in Which Sedimentation Rate is Likely to be Normal or Variable.*
Malignancy (all stages) very high with skeletal metastasis	Thyrotoxicosis
Lues (all stages, but higher in acute stage)	Hypertension
Acute Pelvic Inflammatory Disease	Lead Poisoning
Acute Rheumatic Fever	Congestive Heart Failure
Infectious Arthritis	Various Types of Skin Diseases
Acute Cholecystitis	Nephritis
Pneumonia	Appendicitis (not perforated)
Tuberculosis (active)	Arrested Tuberculosis
Hodgkins Disease	Urinary Calculus
Pregnancy	Cholelithiasis
Empyema	
Coronary Thrombosis	
Septicemia	

a more conservative operation can be performed with less risk and with a prospect of better end results.

Finally the sedimentation rate is a great aid in differential diagnosis of certain conditions. We have used it repeatedly in our series of cases in helping to differentiate acute appendicitis from other acute abdominal diseases which simulate it. By referring to Table 2 it will be noted that acute appendicitis which has not ruptured is not likely to cause an increased sedimentation rate. Acute pelvic inflammatory disease always gives an increased rate. As any physician knows, it is not always easy to differentiate between these two conditions and I feel that this test has been a great help to us in several cases in this series.

It is possible, as has been mentioned by other authors, to have acute pelvic inflammatory disease associated with appendicitis in which case the rate would be high, and the physician must still rely upon his clinical judgment and not deny the patient the benefit of an operation in such an instance.

Lesser and Goldberger[3] have stated that the consistently normal sedimentation rate in appendicitis is of particular value in the diagnosis of acute appendicitis, because in all other conditions which produce the clinical picture of acute surgical conditions of the abdomen, the sedimentation rate is definitely abnormal.

[3] Lesser, Albert, and Goldberger, H. A.: The Blood Sedimentation Test and Its Value in the Differential Diagnosis of Acute Appendicitis, *S. G. & O.*, **60**:157-166 (Feb.) 1935.

ABSTRACTS

TWO POSITIVE SYPHILIS TESTS WILL BE SELECTIVE SERVICE BAR

Federal Director Advises A. M. A. Journal Two Such Findings Within Three Months Will Cause Registrant's Rejection

Two positive serologic tests for syphilis performed within three months will be considered evidence of latent syphilis and to be cause for rejection by Selective Service boards, *The Journal of the American Medical Association* has been advised by the Director of Selective Service, it reports in its November 9 issue. In an editorial *The Journal* says:

"Last week *The Journal* pointed out that the new regulations regarding serologic examination for syphilis of men coming under the Selective Service Act were unique and not duplicated as far as we knew in any other country or by this country in any previous emergency. The editorial concluded with the statement that those who have syphilis with remedial manifestations would apparently be placed in Class 1-A, the group considered to be qualified for general military service. An exception, of course, would be made for those with cerebrospinal, cardiovascular or visceral syphilis. The statement concluded by saying that presumably the decision as to how much attention would be given to the presence of syphilis would rest with the military authorities after induction into the service. Coincident with the publication of this editorial, a telegram was sent to the Selective Service headquarters, inquiring as to whether or not men selected under Selective Service with two positive Wassermann tests would be classified for induction, deferred or rejected, provided they did not have cerebrospinal, cardiovascular or visceral syphilis. The telegram was considered necessary because of the apparent discrepancy that existed between the regulation that a Wassermann test should be given each man examined and that another test should be made provided the first test was positive. A reply was received some days later from Mr. Dykstra, now Director of Selective Service; his telegram read:

> "No man with acute or chronic venereal disease will be used for military service. For administrative purposes Selective Service will consider two positive serological tests performed within three months to be evidence of latent syphilis and to be cause for rejection.'

"In *The Journal* last week the regulations regarding genito-urinary organs and venereal diseases, as published on page 1557, indicate that acute or chronic gonorrhea and syphilis with remedial manifestations, except cerebrospinal, cardiovascular or visceral syphilis, would involve placing the registrant in Class 1-A for general military service. The new telegram from Mr. Dykstra indicates that one positive Wassermann test would probably require that the registrant be deferred until a second test within three months, and that a second positive test within three months would involve rejection.

"In this connection, attention is called to the article in this issue of *The Journal* by Moore, Eagle and Mohr in which they report that they have seen at least forty examples of false positive tests for syphilis either in normal persons or in those with various diseases during the last two or three years. The recognition of false positive serologic tests is especially important in view of the decision to reject for military service registrants with two positive serologic tests for syphilis. A procedure suggested for differentiation of false positive from positive reactions actually due to syphilis is offered by these three physicians."

SULFANILAMIDE FOR ENDOCARDITIS

Prolonged treatment with sulfanilamide cured a case of acute ulcerative endocarditis, a usually fatal heart disease, Samuel Alexander, M.D., and Stewart F. Alexander, M.D., Park Ridge, N. J., report in *The Journal of the American Medical Association* for Nov. 16.

The disease consists of inflammation of the membrane lining the heart and results in ulceration of the valves of the heart. In this case it was due to infection with a streptococcic organism capable of destroying red blood cells.

The cure is attributed by the authors to the fact that treatment was instituted early in the disease, perhaps before deep bacterial invasion had taken place, and that the drug was given for six weeks. There seems little doubt that moderate dosage, long instituted, is more effective for deep seated infections than massive doses for a shorter period of time, they say.

PAIN IN THE FEET*

PARVIN M. DAVIS, M.D.
NEW ALBANY

Foot troubles are manifold, they are universal, they are disabling. Yet no group of diseases is more neglected in the teachings of medical schools, of textbooks, and of scientific magazines. While it is quite true that orthopedic surgeons skilfully correct many of the more serious ailments such as clubfeet, most of us are not orthopedic specialists and all of us are called to treat many degrees of pain in the feet.

On the basis of universal distribution, we shall consider, first, *athlete's foot.* Magazine advertising reminds us that four out of five have it. This is an understatement—it is almost five out of five. However, it is only occasionally that athlete's foot produces serious disability, usually resulting only in sweaty, smelly feet. Nevertheless, and in addition to its own lesions, Trichophyton infestation should be seriously considered since it is a notorious fact that the infection acting in symbiosis with other conditions, especially changes of the blood vessels of the feet, may produce serious consequences, even to encompass gangrene of the foot. Thus the control of athlete's foot is doubly important. The Epidermophyton, the Trichophyton, or the yeast plants, such as Monilia albicans, are the offending organisms. Any abuse of the feet such as long standing, excess heating due to hot pavements, heavy shoes and socks, and lack of ventilation favor the invasion. The fungi are universally distributed, but are especially apt to be encountered where bare feet walk on wet floors, as in locker rooms, bathrooms, gymnasia, and dressing rooms. It might be added, too, that the organism grows best in an alkaline medium, a state favored by infrequent washing of the feet. It is most unfortunate that the prevention of this foot infection is ordinarily neglected and, in fact, patients seldom present themselves until the lesions are fairly advanced, that is, the organism has penetrated well into the deeper layers of the skin, at which time pain is experienced and walking is interfered with. The earliest lesion is a mild superficial invasion and produces only a slight maceration of the skin, most frequently beginning in the fourth and fifth interdigital spaces. However, neglect and continued favorable circumstances soon allow the invasion to strike deeper and scattered vesicles appear. These itch and burn and soon rupture, leaving an open crater. Secondary infection results in an areola of inflammation thereabout. If the condition is further neglected, still deeper invasion takes place and a wide involvement of the toes, soles and even dorsum of the foot may produce large, raw patches accompanied by severe burning and considerable pain. The patient is definitely unable to walk on such feet. Incomplete treatment or spontaneous remission usually results in a chronic stage in which various stages of inflammation may be present. This repeated irritation of the skin and the foot may result in overproduction of the cornified superficial layers giving rise to the state known as hyperkeratosis. The treatments of the acute and the chronic stages are distinctly different. In the former the acute inflammation is the problem demanding attention. Only the mildest antiseptics are to be used. The feet should be cleansed four to five times daily with soap and water, and covered with gauze packs saturated with boric acid, kept warm by hot water bags. Not until this stage is passed and the case has lapsed into a chronic one is the time proper for the use of fungicides. When we speak of the chronic stage of epidermatophytosis, we are discussing no longer a superficial infection but one which has penetrated below the outermost layers of the skin. Although the organisms are not especially resistant to even mild antiseptics, complete eradication is difficult due to the almost complete imperviousness of the superficial skin to medication. We, therefore, must resort to the use of some substance which will remove the cornified layers. Both functions are combined in Whitfield's ointment as it contains salicylic acid as a digestant and benzoic acid as an antiseptic. Care must be exerted that the digestive action be not carried too far as too deep a digestion of the skin will in itself produce irritation and pain.

Other substances having a similar action are a 1% solution of brilliant green in equal parts of benzene and absolute alcohol; 5% carbolfuchsin; or a 1% aqueous solution of gentian violet. This latter remedy is especially valuable in open ulcers as its slightly coagulating power crusts over the lesion and maintains a state of antisepsis beneath the scab. Sunlight, ultraviolet rays, and x-ray have value, also. Shoes should be loose, with slits to allow free ventilation, and the toes should be separated by pledgets of cotton. Recurrence may be prevented by washing the feet twice daily with sulphur soap followed by a 10% solution of boric acid. The tendency toward recurrence is quite marked and is probably due to the proneness of the infection to linger under the nails, in corns and calluses, and in the leather of shoes. It hardly need be emphasized that it is essential that the patient be under the care of an intelligent physician, rather than to rely upon self-treatment with advertised medicinals of dubious value.

Ingrown toenail. This condition is comparatively frequent and may produce considerable disability.

* Presented before the Floyd County Medical Society at New Albany, October 11, 1940.

Essentially, the condition is one of a chronic abscess of the tissue about the medial nailfold resulting from the trauma of compression of the soft part of the toe against the corner of the toenail. If neglected, eventually the abscess extends under the nail to the matrix and may even involve the root of the nail. It is well known that those suffering athlete's foot are much prone to have ingrown toenail. Prophylactic treatment should include attention to the fungous infection, trimming of the nail by cutting it squarely across, and leaving it sufficiently long to project beyond the matrix, and the avoidance of too pointed shoes. The mildest cases may be relieved by elevating the corner of the offending nail by placing a small wad of cotton under the nail to provide drainage and to distribute the pressure and to prevent the growing nail from digging into the soft tissue. If pain is severe, elevation of the foot and hot boric acid dressings will give much relief. The usual case that comes to the doctor is of a more severe grade and more extensive measures must be adopted. Two factors must be provided: first, complete drainage of the abscess under the nail; second, application of antiseptics. This end is obtained only by removing the nail. The operation is easily done under local anesthesia and consists of bluntly separating the nail from the matrix and then with the nail clamped in two hemostats the entire structure is pulled out of the rootbed. In my own experience it has not proved a worthwhile procedure to remove half a nail. It is also well to remember that any gouging of the matrix allows a deeper penetration of the infection and a retardation of the period of final healing. A final point should be made that in the most severe types of infection, and especially those in which the nail has been removed several times, it may be necessary to destroy the nailroot which requires curettement of the proximal matrix and thorough cauterization so as to prevent the return of small nail spicules, which will themselves cause painful symptoms and require a second operation. Occasionally one sees in elderly persons large, thick, curved nails which are underlaid by chronically infected nailbeds. This condition is the result of long-standing athlete's foot infestation of the nail root. Usually these nails should be permanently removed.

Calcaneal Spur. The spur is an exostosis projecting from the plantar surface of the os calcis along the plantar aponeurosis. Spurs occur most frequently between the ages of forty and sixty, especially in those of a rheumatoid or gouty diathesis. These individuals develop great pain on weight-bearing and the gait is typical with the weight carried only upon the fore part of the foot. The entire heel may become tender but deep pressure elicits pain only in the site directly over the spur. X-ray of the foot in the lateral view easily demonstrates the bony projection. The pain does not ordinarily arise in the spur itself but in the periosteum of the heel, and especially from the developing of a bursitis over the spur. In fact, I once had a patient with bilateral spurs. One heel was exquisitely tender, and the other, exactly similar when viewed with the x-ray, was not sore at all. The difference was accounted for by the presence of an inflamed bursa on the painful side. Treatment of this condition is conservative, or surgical. The former should be tried in every case as a considerable number of these will not require operation. Conservative treatment consists of keeping the foot at rest as much as possible, application of mild heat, and protection of the heel by wearing a one-inch layer of sponge rubber in the heel of the shoe. The periostitis is relieved by adhesive strapping in such a way as to hold the anterior foot moderately extended and rotated inward. Shoes should have an elevated heel and the entire inner margin of the sole and heel should be built up half an inch higher than the outside. If, however, after a reasonable length of time, the pain persists, it is necessary to resort to operation which will consist of removing, first, the bursa in its entirety, and then chiseling off the spur and any rough edges to the anterior lip of the os calcis. Postoperative care consists of the same bandaging and shoe changes which relaxes the tendo achillis and plantar aponeurosis. It is interesting to note that a similar bursitis occurs at the insertion of the tendo achillis at the superior lip of the os calcis and is usually described as Haglund's disease. The treatment in this condition is entirely operative and consists of removal of the bursa and with a flat chisel; the superior margin of the os calcis is beveled away.

Among the *static disturbances of the feet* I will discuss only fallen arches. The remainder fall into the realm of major surgery and are adequately covered by any text on orthopedics. Attention is called to the fact that I am not discussing flatfoot, but rather the acute case of foot strain producing severe pain on standing, and much disability; it is described by the laity as "fallen arches." Practically every case is accompanied by pains in the leg muscles. This gives a clue to the causative factor of these foot pains, namely, it is a functional muscular decompensation. As you know, the longitudinal arch of the foot is in part maintained by those muscles whose tendons wind around the medial aspect of the foot to reach the base of the toes. Any too active strain, either by standing or jumping, may stretch the ligaments of the foot to the point where undue pull falls upon these muscles. Thus, also, is explained the relief obtained by padding the hollow of the foot which removes this added pull on the leg muscles and relieves the pain. Many patients have recurrent attacks of this complaint and the physician, without surgery or without special apparatus, can do much to afford them relief and comfort. It may be accomplished first by strapping the foot beginning on the dorsum, passing over the lateral border to the plantar sur-

face, carrying the strap over the medial arch up over the anterior surface of the ankle on the outside of the leg and ending just below the knee on the back of the leg. This provides inversion of the foot, some dorsi-flexion of the arch, and extension of the ankle joint, as well as the general fixation of the parts. This position will be found most comfortable and is further maintained by changing the sole of the shoe. The weight should be distributed along the outer border of the foot and is accomplished by applying a wedge to the sole and heel, one-fourth to one-half inch higher on the medial side and feathering in the outer edge. In addition, it occasionally gives further relief to extend the heel one inch forward on the medial side and to provide a leather pad under the instep. There is considerable relief to be obtained, especially in the prevention of the recurrence of the pain, by the wearing of arch supports inside the shoes. Whatever type is chosen should be capable of molding or padding to fit the individual foot. There are shoes made which contain arch supports, but they are, in many cases, unsatisfactory due to the fixity of the inbuilt support, so that it cannot be changed as required. The built-up shoe is to be worn for several months after all symptoms have disappeared. The care with which the adhesive strapping is applied in the early stages seems to me to be quite important and this type of treatment has, in many individuals, been completely successful. I have not had to resort to surgical correction of fallen arches in any case of otherwise normal feet.

Anterior Arch Trouble. This condition results from a widening of the arch of the bones extending from the proximal head of the first metatarsal to that of the fifth, allowing the heads of the middle metatarsals to approach the plantar surface of the foot. Soon the unaccustomed pressure under the second and third metatarsal heads results in the formation of a large, painful callus. There are two complications: one is hallux valgus, and the other, by a contracture of the flexors of the second or third toe, is hammer toe. The collapse of the anterior arch is much harder to correct than that of the longitudinal arch, due largely to the fact that it is more chronic and fixation by fibrosis plays an important part. It is absolutely essential to break up these contractures, by heat, by massage, and manual manipulation. The foot is baked for thirty minutes and then with the thumb pressing upward against the bottom of the under surface of the middle metatarsal, the first and fifth are brought downward to reestablish a normal weight-bearing arch. This procedure is done frequently, as many times as the condition of the foot will allow, and should be repeated daily for several weeks. It may be necessary to do the manipulation under anesthesia. Once the foot becomes supple again and the callus on the sole softened by the use of salicylic acid and scraping, the patient is allowed to walk in a special shoe. The heel is similar to the one described above but, in addition, there is a pad or plate placed under the middle three metatarsals.

Another type of pain in the feet is related to blood vessel changes. The scope of this paper is too limited to do more than to name them. Chief among these are thrombo-angiitis obliterans, general arteriosclerosis, and diabetic arteriosclerosis, to which should be added varicose veins and varicose ulcers. I have mentioned them merely to point out what was stated earlier, that much of the pathology of these conditions is made greatly worse by the presence of neglected fungous infections on the toes and feet. Diabetes plus arteriosclerosis produces painful, crampy, burning feet. Diabetes plus arteriosclerosis plus untreated epidermatophykosis frequently produces gangrene.

Bunion is a painful disturbance of the great toe. Too pointed shoes, especially when combined with high heels which allow the foot to slide forward, produce a deviation outward with the metatarsophalangeal joint bearing the brunt. Continued pressure on the toe produces deformity of the joint which seems to overgrow and results in a bump on the medial aspect of the foot. This projection resists the pressure and rubbing of the shoe, and gives rise to two conditions: a heavy tender callus, and a bursitis between the skin and the bone. A bunion may be extremely painful and practically prevents normal walking. Prophylactic treatment consists mainly in the use of proper shoes which provide a low, wide heel and a toe which points forward. This prevents unstable gait and forward sliding of the foot allowing weight to be borne equally between the heel and the ball of the foot, with the big toe performing its normal function of driving the body forward at the end of each step. Rest in bed and application of heat are required for the relief of the bursitis. The callus will yield to removal of the thickened skin and subsequent protection by felt pads. Unfortunately, most of the cases are far advanced before the woman (or the occasional man) presents herself for treatment, and here surgery alone will suffice to relieve the pain and disability. It consists of removal of the distorted distal head of the first metatarsal. This procedure permits the great toe to drop backward approximately half an inch and the valgus position is entirely corrected. The foot is placed in splints for ten days with the toe held in an exaggerated varus position. During the operation the infected bursa is to be removed. If the procedure is done properly, the patient gets complete relief.

Hammer toe is a condition in which a toe, usually the second, is pointed upward in the first joint and downward in the second, producing a claw-like appearance with weight-bearing on the end of the toe. It produces discomfort due to pressure by the shoe on the projecting second joint, and on the end of the toe. A very tender callus and

underlying bursitis usually results, and the patient's walking ability is seriously impaired. Correction of the contracture automatically relieves the pain. Massage and manipulation and stretching will relieve some of the milder cases but most of them will require operation, which will consist of resecting the bunion-like enlarged distal head of the proximal phalanx, which allows the toe to straighten out, or it may even be worthwhile to remove the toe completely.

Discussion of Dr. Richard L. Hane's Paper

RECURRENT HYPERTHYROIDISM*

By J. R. YUNG, M.D.

Terre Haute

Dr. Hane has very ably presented a phase of goiter surgery in which the profession is deeply interested. I am honored and pleased to have been invited to open the discussion on "Recurrent Hyperthyroidism."

In beginning, I wish to bring to your attention a group of patients often difficult to diagnose and which, if operated, are most likely to have poor results. This so-called borderline group which comprises usually women between the ages of 16 to 25 complaining of choking, nervousness and palpitation of the heart, are usually underweight, have instability of pulse rate which is found normal if taken at rest and in the absence of apprehension, have coarse tremor of the fingers and cold moist palms, prominence of the thyroid due to its being thrust forward by faulty posture of the patient though the gland is actually normal in size and consistency. On first test, the B.M.R. is a x15 to x25 but when repeated on a series of subsequent days it is found in the normal range. This group should not be considered as goiter with hyperthyroidism. If the patients are operated they receive no benefit and cast the greatest discredit upon thyroid surgery.

One cannot doubt that surgical judgment is a factor in true recurrence, as we find that the lowest percentage of recurrences are in groups cared for by those who have had very wide experience in goiter surgery which enables them more correctly to estimate the size of the remnant to leave for further thyroid function. If there is error in this judgment it is far better, for the patient, to leave too little than too much thyroid tissue. It is far simpler to control a hypothyroid state with nightly administration of thyroid extract than to attempt control of a hyperthyroid state with iodine and rest or additional surgery.

As the author has mentioned, there are other factors than surgery responsible for recurrence. All of us have seen cases of very small thyroid remnants grow into very sizable masses. It must be remembered that the remnant of thyroid tissue left in exophthalmic goiter, in which type we have the most recurrences, is abnormal hyperplastic tissue subject to the same stimulant whether it be a local irritant, distant infection, or pituitary impulse which existed prior to thyroidectomy. As involution of the gland to a partial colloid state is produced by iodine preoperatively, so this remnant should be kept in a state of involution by administration of iodine postoperatively for six months to a year or more. Foci of infection should, in so far as possible, be removed soon after thyroidectomy or controlled by medication. I have been impressed by the number of very large, red, spongy tonsils I have seen in severe exophthalmic goiter and in recurrent cases.

If recurrence is not controlled by iodine there should be a further resort to surgery. As would be expected, adhesions are present in a subsequent approach to any postoperative field. In recurrent postoperative hyperthyroidism, as stated by the author, there are very dense adhesions of the remnant of the thyroid to the major vessels of the neck, recurrent laryngeal nerves, and parathyroid glands. Injury to these structures may be avoided by intracapsular dissection, and the oozing during the procedure may be controlled by digital pressure on the lateral or posterior aspects of the capsule of the remnant.

The author has given the mortality and recurrences in a cross section of the large clinics and small hospitals to which, may I add, that in a series of 984 of my own thyroidectomies including all ages, some appearing with decompensated hearts, anasarca, diabetes and other serious complications, the mortality rate has been less than 1% and recurrence under 4%.

I am in accord with the author that subtotal thyroidectomy cures more patients in a shorter time than any other method and that a procedure with such a low mortality rate and few recurrences should not be denied any patient suffering from hyperthyroidism.

* Through error, for which the editorial staff apologizes, this discussion of Dr. Hane's paper was omitted from the December issue of THE JOURNAL. Dr. Hane's paper was published on page 675 in that issue. Please refer to it.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Mrs. J. S. Skobba, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
Pierce MacKenzie, M.D., Evansville....Dec. 31, 1940
J. B Maple, M.D., Sullivan....Dec. 31, 1940
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942

JANUARY, 1941

Editorials

HOOSIER POLITICS

THE JOURNAL is not in politics. We consistently have refrained from partisanship in the discussion of political matters that would seem to affect the profession of medicine within our state. At times we have commented upon various subjects of a political nature, our sole purpose being an attempt to clear the issue insofar as it related to medicine, but in all other political controversies we have remained silent. It is not that we have agreed with all that has been done by political Indiana, but we do believe that a medical magazine should be a *medical* magazine.

Now, however, there has come a radical change in the Indiana political picture; we have that interesting combination of a Democratic governor facing an overwhelming Republican majority in both branches of the legislature. This, of course, means that this majority can, if they so desire, control all matters of legislation in the coming session of the General Assembly, since but a majority vote is necessary to override a gubernatorial veto.

The incoming Governor has made numerous statements that to us are more than intriguing; they would seem to indicate that, at long last, we have an executive head whose chief desire is to do those things that are for the best interests of the people of this great state. (We are making no predictions, please understand; Hoosier politics is an unpredictable entity!)

On the other hand we have heard the expressions of many members of the "G. O. P.," some radical, some middle ground, and some conservative. All seem to be of the opinion that the "Ins" have a lot coming to them and are of a notion to take it. This, of course, refers to the so-called political plums—the appointments to the various "jobs" about the state. There is little doubt but that the old "reorganization" bill will go by the board and we shall shed few tears with its passing. It is to be hoped, however, that no similar plan of centralization of appointments will be undertaken by the majority.

As the situation now appears to us, we have a Governor who has declared that he wants to "do things and go places"; he wants to be fair about things. We have a legislative majority that can enact almost any measure it chooses without fear of effective veto. It is our hope that both the Governor and the members of the legislature will get together on major measures. It is, of course, too much to hope that politics will be set aside during the coming session. We presently need a sensible, sane, well planned legislative course, one that is carried on without too much thought given to the effect on politics of the future.

A little note of much interest to us is the often expressed conviction of Assembly members, many of them new to the post, that already there are too many Boards and Commissions and that they are unalterably opposed to creating any more. We trust that their present sincerity will continue for the next sixty days or so.

So it is that we will watch the doings of the coming legislature with added interest; for several years we routinely have noted every measure introduced, just to be sure that we overlooked nothing of interest to our profession. This year we shall have an added interest, that of seeing what the new set-up will bring forth.

All of these things, of course, are known by the Governor. He also is cognizant of the fact that some of the legislative enactments of recent years, notably the "reorganization" measures and the bill legalizing the doings of the nationally famous "Two Percent Club," have not been so popular with the Hoosier populace. Already Governor Schricker has come out with a statement to the effect that the "Club" will go out of business and we understand that it is no longer operating as of old. It remains to be seen what the Republican majority will do with the reorganization matters.

Governor Schricker, soon after his election, issued another pronouncement which was much to our liking, that relating to the moratorium on automobile licenses. We never have agreed with the former Governor that his title and his office gave him the right to set aside a law, even temporarily. We are willing to grant that Governor Schricker made this comment in good faith, though there are those who insist that it was planned in order that fees accruing to the license bureaus over the state might get into Democratic hands for at least another year!

EXTRA DRIVING HAZARDS IN WINTER

The Indiana State Highway Commission, in a recent release, points out numerous additional driving hazards during the winter season, and makes numerous suggestions for their avoidance. Various press comments during the past few weeks have been to the effect that the Commission is taking unusual precautions for the current season, in spite of which it is certain that automotive accidents ever will be with us in all seasons. It might be mentioned that the number of such accidents decreases during the winter months, which is true, as was pointed out recently in one of the questions in the radio hour, "The Battle of the Sexes." It is true that accidents are not so numerous, in point of numbers, but this is because there is less traffic via pleasure cars during this period. However, the proportionate number of accidents is by no means decreased.

During the winter of 1939-1940, some thirty members of the engineering staff of the Highway Commission conducted a series of driving tests, trying out all sorts of road and weather conditions, including about every hazard known to those experts. From this study there developed seven recommendations for motorists who find it necessary to drive during all seasons. They are as follows:

1. Check brake linings for simultaneous gripping.

2. Good tire treads are helpful but do not provide adequate traction on packed snow or ice. Chains should be put on when needed.

3. Make sure that the windshield wipers and defrosters are working and that lighting equipment is in good condition.

4. Travel at reduced speeds on snow and ice, even when protected by chains, and watch for children playing with sleds.

5. Keep plenty of room between you and the car ahead in case of need for sudden stops, and approach ice or snow-covered curves slowly.

6. Slow down in gear and pump brakes in an off-and-on action to keep wheels from locking completely, especially when chains are not being used. Chains do not duplicate dry pavement stopping ability but do cut stopping distance on snow and ice and aid in control of the car.

7. Exercise more caution generally and open cowl ventilator to force out any gas that may collect in the car.

If every Hoosier motorist would learn these seven rules "by heart" and put them into *daily* use, there would be few motor accidents on our highways. Nothing is said, however, in these suggestions, about observing the laws of the road relative to cross roads, preferential highways, etc. These are the personal elements that enter into any discussion of automotive traffic accidents and no set rules may be offered to regulate them.

The Indiana State Highway Commission is regarded over the entire country as being "tops" in their work; almost every day we hear comments to the effect that Indiana highways are the best in the country. Not only does the Commission take immediate advantage of every improvement in road construction but they are pioneers in much of this development. Many other states find it worth while to send their engineers to Indiana to see how we do it.

And while it has nothing to do with the discussion of highway accidents, it is apropos to comment on the fact that *all* Indiana highway construction, including grade crossing separations, are made on a pay-as-you-go basis. There are no bond issues to finance these projects. Indiana provides in her constitution that she shall issue bonds for no purpose—and taxes are not increased, the word tax being used in its commonly accepted sense. There are taxes, as a matter of course, paid when you buy your license and your gasoline, but there are no increases on your state, city, and county tax bills.

The Highway Commission does a superb job of road marking, every curve, every hill, every "dip" in the road is well advertised before the motorist reaches it; they have provided just about every safety device known to man, yet accidents continue to happen, most of which are avoidable. The Indiana State Highway Commission has worked wonders with our Indiana roads, but they have as yet been unable to put the desired and necessary amount of brains behind the steering wheel of every car that uses our Indiana highways.

ECONOMICS FOR THE FUTURE

The fabulous expenditures now being made by our government for defense may well produce a revolutionary effect on this nation's social and economic thinking when the need for large defense expenditures no longer exists. We should all be thinking of the future significance of this situation and planning to the end that the impact of a reversal of the process will not completely wreck our social and economic structure.

We shall be spending about six billion dollars a year for the period of the emergency. This may well reach a total of ten billion dollars annually once our industrial mechanism is adjusted to absorb it. The public debt will have to be boosted to a possible seventy-five to one hundred billions. Taxes will, of necessity, be raised accordingly. We shall all be called upon for sacrifices. Still, there is no group or class, rich or poor, which does not favor these expenditures, extreme as they seem to be.

What of the aftermath when the emergency ceases to exist? Will there be a demand that like amounts be provided for our ever increasing number of ageing persons, for the unemployed who will be thrown out of employment, at least until such time as the economic machinery can be reversed? This certainly will not be done more

quickly than it is now taking to set the direction in the way of defense production. Will there not be agitation for vast improvement in our whole set-up at home? And finally, will not the demand for governmental medical service be more insistent than before? It will be asked, ironically, whether we cannot spend as much to keep our country sound and healthy as we did to protect her from outside enemies. So we may well believe that this present crisis will, as did that of World War I, engender a public demand for the federal government to assume new responsibilities, social, economic and financial.

It would seem that along with our committees on national preparedness, we should have equally strong committees studying the problem of national rehabilitation.

WILLIAM A. SPURGEON

Indiana medicine loses another of its landmarks in the passing of Dr. William A. Spurgeon, of Muncie, at the age of eighty-eight. Dr. Spurgeon graduated in medicine more than sixty-five years ago; most of his medical career was spent in Muncie.

He was a member of the first Board of Medical Registration and Examination, having been appointed to that post following the enactment of the present medical law, in 1897, and for more than thirty-six years continued in that capacity, much of that time serving as president of the Board. He was the "father" of the present Federation of State Medical Boards, having written the original constitution and by-laws of that organization.

For many years the writer served on the Medical Board under the presidency of Dr. Spurgeon, and thus had an intimate acquaintance with the man. In the later years Dr. Spurgeon was somewhat given to reminiscence and at Board luncheons frequently spoke of his early experiences in medicine. Before taking up medicine he had served, in turn, as minister and lawyer, his training in the latter profession enabling him to render an unusual service to the Board.

He had a quaint manner of expressing things, bringing in his sense of humor to good advantage. One day, in a Board meeting, we had expressed the opinion that a certain thing was illegal. Dr. Spurgeon corrected by saying, "Doctor, you are wrong there; it is not illegal, it is *unlegal*!" On another occasion we were sorely perturbed about some uncomplimentary remarks an Indiana newspaper had made about the Board and were very much in favor of writing to the editor and speaking our mind. Dr. Spurgeon mused a bit, then said, "I would not do that; I have found that it is good policy never to enter into a controversy with any man who buys his ink by the barrel!"

Dr. Spurgeon was a great lover of nature. He had for some time lived in Washington County, Indiana, and was familiar with the hill country thereabouts. Back in the days when Indiana's Brown County was so little known as to be almost legendary, he bought several hundred acres of land in that county, later planting thereon several thousand fruit trees, and his frequent visits to these orchards afforded him much pleasure.

For many years Dr. Spurgeon taught the Men's Bible Class of the Jackson Street Church of Christ, in Muncie, the attendance thereat usually ranging over five hundred. He spent many years in the preparation of a book, published in 1936, entitled "The Conquering Christ; an Interpretation of the Revelation."

Several years ago he retired from active practice, to devote more time to a manufacturing business in which members of his family were associated. He was very successful in this venture. He was devoted to his family and liked to tell of an occasion which concerned a grandson of tender years and possessed of more than common ability as a violinist. Dr. Spurgeon used to tell the lad that he could not make a living with a violin and that it might be well for him to develop some other talents as well as his music. The lad made a wager with his grandfather to the effect that he could start out with his violin and "make his way." Much to the discomfiture of Dr. Spurgeon, his friends in neighboring cities began calling him, asking about the boy with the violin who was playing on street corners! In telling of this, Dr. Spurgeon used to say, "I was mighty proud of that boy, even though his 'touring' caused me some embarrassment."

Dr. Spurgeon could well be termed a noble man and in his passing the profession loses a most devoted member.

THE CRUM CASE

Special Judge Herbert E. Wilson, sitting in Marion County circuit court, has handed down his decision in the long-drawn-out case of Hiel E. Crum, Indianapolis exponent of a contraption he terms an "Etherator," vs. the Indiana State Board of Medical Registration and Examination. Crum was seeking to mandate the Board to restore his various licenses to practice several branches of drugless healing, these licenses having recently been revoked by the Board. To one who followed the case through rather complete newspaper reports, it would seem apparent that Judge Wilson gave Crum every possible chance for his "etherator," even going so far as to appoint a committee of widely known chemists, all connected with various teaching institutions in Indiana, to supervise a test of Crum's own choice.

Among the many claims made for this "marvelous" bit of hokum were that it would ionize a well; that on the other hand it would remove iron from a well of water. So it was that he set out to prove to this committee of scientists that the ma-

chine would do this very thing but, as was known in advance, the test of the "etherator" proved to be a fluke.

Numerous other Indianapolis drugless healers testified on behalf of Crum and his little box, as well as folk from without the state. Press reports seemed to indicate that Crum and his legal representative put up the best possible battle and that he was given every opportunity to make good his claims, some of which, it seems, were a bit far-fetched. Crum, so it is averred, declared that absent treatments with the machine were very efficacious; that the machine would fertilize ground —in fact, its limitations seemed to be nil.

The original prosecution, that of seeking the revocations of Crum's licenses, was brought by the Indianapolis Better Business Bureau which organization is doing a good job of cleaning up some of the worst treatment-fakirs in the state. We shall have more to say about some of these accomplishments at another time.

Judge Wilson, in announcing his verdict, in which the action of the Medical Board was upheld in every particular, is quoted as saying: "Some hysteria patients have been cured by such a hocus pocus known as an 'etherator,' but this does not warrant the court's permitting such fraud to continue." He is said to have commented to the effect that persons with diphtheria, pneumonia and many other such diseases would have died—if Nature did not cure them—under such treatment. In concluding, Judge Wilson said:

"If the 'etherator' was anything but a fraud, or had the healing powers that *Mr.* Crum claimed for it, we may be sure that all the leading medical schools and hospitals of this country would have been using it, long before Mr. Crum or anyone else would have thought of it. It is true that some people were cured or helped by Mr. Crum. Some of these people were mistaken in diagnosing their cases, but the fact remains that a good many patients were helped but that they were what is commonly known as hysteria patients."

Thus ends a case that has attracted a great deal of attention during the past few weeks; Crum is without license of any sort; his "little box with the electric light" stands as legally and officially discredited. It is stated that Crum has decided to appeal his case to the State Supreme Court whose decision will be read by many with more than common interest.

Well, what next! We've had the black boxes of the conjurers, the various modifications of the one-time noted Abrams machine, now the Crum "etherator." No doubt the successors to these will come along soon, since the gullible among the American people continue to fall for almost any sort of "healing." As the judge said, these folk are hysteria patients; they will grasp at anything, they will act on almost any suggestion, hence it is likely that there will be these little skirmishes with this type of quack for years to come.

Editorial Notes

100% SOCIETIES

SULLIVAN COUNTY—James B. Maple, Secretary
WHITLEY COUNTY—Park Huffman, Secretary

Early reports from Indiana draft boards indicate that approximately twenty to twenty-five per cent of men examined are rejected because of physical reasons. This is quite disappointing, for we had expected this figure to be materially reduced; as a matter of fact, it remains very near the figure of the first World War.

The December JOURNAL reached your desk a bit late, for several reasons, chief of which is the fact that it was an unusually large number, being only a few pages less than the Convention number, and our meeting, held the last week in October, made it necessary to publish all convention news in the December issue.

"The present European war is comparatively unimportant when placed alongside the issue of whether vivisection shall continue as the main factor in medical research," said Clarence E. Richard, managing director of the National Anti-Vivisection Society of Chicago, in an address to the presidents of men's and women's clubs. The above is clipped from a late issue of *The New Yorker* magazine. Now we know what *he* thinks!

The Third Annual Congress on Industrial Health will be held at the Palmer House, Chicago, January 13 and 14, 1941. The sessions are open to all physicians and to all others who are interested in such matters. The program appears in the November twenty-third issue of *J.A.M.A.*, and will prove of great interest to many Indiana physicians. As we often have commented, industrial medicine rapidly is coming to be a topic of general interest and we predict that interest in it will continue to increase.

It was the lot of an Indianapolis man to make the highest reading ever recorded on a Harger drunkometer, according to Indianapolis police. A resident of that city reached the peak when the machine dial gave a reading of 3.73. And all this long before New Year's Eve, a time when celebrants are prone to take on a binge of more than ordinary proportions. Newspaper reports are to the effect that the record breaker was fined some seventeen dollars and costs, all of which

was suspended after he had agreed to pay damages to another car. Our guess is that had this chap essayed a trip into Batholomew County and had been picked up there, he would have spent a nice, long winter in Putnamville.

The passing of the modern drug store is now predicted by a writer in *Hygeia* for December; the article is written by a druggist of LaCrosse, Wisconsin, E. G. Wulling. He offers the suggestion that the present plight of druggists which seems to have made it necessary for them to enter into what almost amounts to a department store business is due to an overplus of pharmacists; he says that 150,000 folk are now doing the work that can and should be done by exactly one-third of that number. He predicts that the universities will continue to raise their standards of admission and instruction and that in due time the drug business will be just that.

We note an occasional comment in the medical press to the effect that physicians and surgeons are overlooking a profitable source of income when they ignore foot troubles. No one will deny that trained medical men are more competent to care for various foot ills than any other group, yet few of our profession pay much attention to these things. McBride, in *The Journal of the Kansas Medical Society* for October, 1940, discusses "The Role of Surgery in Painful Feet," presenting a discussion of the surgical management of nine troublesome foot ailments. His article is well illustrated by drawings, enabling the reader to understand thoroughly the technique employed.

Now that the fishing season is over, save for the fortunate who are able to sojourn in the southern climes for varying periods through the winter, the following comment may be of interest to Waltonians. A governmental estimate is to the effect that the fish caught by the average angler have cost him something like three dollars to five dollars per pound. It is our personal opinion that if we eliminate from these figures the few big lunkers we have picked up in past years, our bags of the finny tribe have cost considerably more than the above figures would indicate. Fishing, if by that one means fishing in waters miles away from home, is an expensive sport, yet one that is of inestimable benefit to the participant.

Indiana's state parks, long the meccas of visitors from all over the country, came in for a handsome compliment from Editor Wallace of the Louisville *Times* when he said: "Indiana's long strides in conservation reflect triumph of the best Hoosier culture." (Better read that sentence again lest you miss its real meaning!) Seems that Wallace attended a meeting at Frankfort, Kentucky state capital, where he had commented that there was too much politics in the Kentucky conservation program. He then remarked to the effect that Colonel Lieber, Stanley Coulter, et al., had managed to build up a conservation program in Indiana that is a model for any state. We are wholly in accord with Editor Wallace. Indiana does not need to take a back seat in any discussion of conservation.

The average Hoosier resident is somewhat familiar with the Age Assistance program conducted by the state welfare group, but it is likely that few are aware of the large number of recipients of some form of state aid. For the month of October, 1940, there were almost 65,000 names on this list. The expenditures were over a million dollars, each claimant receiving an average of about eighteen dollars per month. The number of applications for various forms of age assistance is constantly increasing and it also has been proposed to raise the monthly "pay" from a maximum of thirty dollars to forty dollars. We wonder by just what method our legislators will plan to raise this additional revenue in the event such an increase is made.

In ten days the open season on the little "cotton tails" will be ended, but it will be another thirty days or more ere the statistics are in regarding tularemia, commonly called "rabbit fever." In less than thirty days after the hunting season had opened, some ten cases had been reported to the Indiana State Board of Health. As is well known, the greater per cent of these cases are not officially reported and it is commonly believed that the season just closing will show an increase in the number of these infections. Until the hunters of Indiana are convinced (and this might be said of some Indiana physicians) that there is such a thing as tularemia, that it results from contact with infected rabbits, and that the mortality rate ranges from four to six per cent, just so long will we have to combat this disease.

"Immediate Care of Automobile Injuries to the Face" is the subject of comment in the *Proceedings of the Staff Meetings of the Mayo Clinic* for November thirteenth, in which Gordon New speaks of some of the ill effects of delay in treating such injuries. He especially directs attention to the attempt to temporarily sew up wounds about the face at the scene of the accident, without having the proper suture material. He suggests that it is far better to approximate the wound edges with adhesive tape until the patient can be removed to

a hospital or to the office of a physician. Pharyngeal or laryngeal obstruction should be noted carefully, for many of these conditions are due to blood clots. Pulling the tongue forward often will give relief. He also suggests that in cases where there has been a large area of denudation, careful search should be made for pieces of skin, that these may be used in repair work.

As was predicted, the drugless folk have asked that they be given opportunity to display their wares in these times of preparedness. They, of course, bring up the old arguments to the effect that in the 1918 flu epidemic their mortality was from one per cent for the osteopaths, while the chiros claimed even a better record; in pneumonia the osteos' record was ten per cent while the medical men showed a mortality of thirty-three per cent in their cases! All this is pointed out in an article in *Liberty* magazine in an editorial by Bernarr MacFadden. *The Journal of the American Medical Association* for November thirtieth editorially points out the fallacies of the MacFadden argument. The question of diagnosis enters deeply into the consideration of such a matter; we all know of many instances in which a simple cold has been termed a pneumonia by some irresponsible drugless healer. Up to date both the Federal and State governments have so unanimously accepted the suggestions of trained medical men in all matters pertaining to selective service examinations, as well as rules for the supervision of the health of these men while in service, that we have little fear that we will share such work with incompetents.

Notwithstanding the fact that the medical press carries frequent articles concerning the injection treatment of hemorrhoids, the Council on Pharmacy and Chemistry of the American Medical Association has issued a warning against the general use of this method, in a report in *The Journal of the American Medical Association* for August seventeenth. In 1936 the Council made a hospital survey of the question and a few months ago made an additional survey, directing inquiries to the same hospitals as in 1936. Their findings and recommendations are contained in this section of their report:

> "After consideration of the second hospital survey and the reports in the recent literature, the report says, 'the Council now concurs in the opinion that the method involves less danger of serious complications than surgery when employed only in selected cases of hernia by those skilled in the injection of suitable standardized solutions of known composition and action. The Council is not, however, willing to recognize any such solutions for New and Nonofficial Remedies until sufficient follow-up experience in their application has been gained to establish the success of the injection method of treatment. Present evidence indicates that better types of solution are to be desired.' "

Thus do we again have before us an old problem. It seems that the Council is of the opinion that this form of treatment is probably all right in the hands of those who are especially qualified, but it is not to be used indiscriminately.

The following letter was recently received by Dr. Irvin Abell, chairman of the Preparedness Committee of the American Medical Association, from Governor M. Clifford Townsend:

> "I believe you will be interested in knowing that the Indiana State Medical Association has been of invaluable assistance to me in selecting Examining Physicians, Assistant Examining Physicians, Medical Advisory Board members, and medical members for Boards of Appeal for the administration of the Selective Training and Service Act of 1940, in Indiana.
>
> "The Indiana State Medical Association, at my request, made recommendations for all of the above positions, and without exception the recommendations made to me by the Association have been appointed.
>
> "Karl R. Ruddell, M.D., the President of the Indiana State Medical Association, has been generously cooperative. Mr. Thomas A. Hendricks, the Executive Secretary of the Indiana State Medical Association, has been untiring in his highly successful effort to procure for me excellent medical personnel for the administration of Selective Service in Indiana.
>
> "The Indiana State Medical Association can indeed be proud and gratified, as I am, of its fine work and cooperation in this emergency."

This substantiates what many others have said relative to the manner in which the Indiana State Medical Association has approached the problem of preparedness as it affects Indiana. We were "all set" long before the program was well under way in other points, and at one time we were admonished from official sources that it might be well to slow down a bit because we were too far ahead of the procession!

Sam Kopetzky, editorial commentator of the *New York State Journal of Medicine*, is rather frequently quoted in our JOURNAL; in fact, at times we "lift" in its entirety one of his editorials, most of which we find more than intriguing. We recently came across one of his comments relative to an editorial in the New York *Times* in which the writer talked about there having been so many men rejected in a New York State area when applying for enlistment into the United States

Army. The *Times* wants to know why, in the face of all the advances in medicine, there is little difference in the number of rejections today as compared to those in 1917-1918. Kopetzky makes one of his characteristic replies, which we quote:

"Now ordinarily divination is a little out of our line. We prefer to adhere to the facts of life. But here is a neighbor in trouble; his diviner has broken down at a critical time; and never let it be said that we refused help to an honest inquirer in distress. The facts are that in spite of all the educational work that has been done on Americans they have remained strikingly indifferent to their own well-being. 'Now,' we asked our diviner, 'Why is this so?' For quite a while the rusty old mechanism just groaned and wheezed. Finally a voice speaking in Attic Greek (which we translate) mumbled something to the effect that 'you . . . can lead . . . a horse to . . . water . . . but . . .' and then faded away. Again we heard only gear noises for a while, then: 'Aesop speaking . . . human nature . . . about the . . . same. See my fable of the cock and the pearl, quote Precious things are for those that can prize them. . . . Also fable of Hercules and the waggoner: The gods help those who help themselves unquote . . . stop.' After this our diviner, too, quit.

"Perhaps this will be of help. We offer it for what it is worth. If it means anything at all our interpretation is that Americans have got too many other things with chattel mortgages on them to worry over. They don't give a damn about their well-being. Let the government take care of it.

"Call on us any time. We're always glad to help a neighbor out."

The members of one of the Woman's Auxiliaries were desirous of obtaining a program for the study of public health in their own community and asked for information as to how to proceed. Their inquiry was referred to Dr. W. W. Bauer of the Bureau of Health Education of the American Medical Association. Feeling that his reply thoroughly covers the subject and offers suggestions that may be adopted by other auxiliaries considering such a program, we quote Dr. Bauer's letter:

"It appears that your Woman's Auxiliary is considering a study of the public health situation in the city and desires information as to where to begin.

"First, in answer to your specific questions:

"(a) You can procure copies of the State Board of Health laws and regulations from Dr. Ferree and you have undoubtedly already done so.

"(b) You are entirely within your rights in asking for copies of local ordinances.

"Perhaps I may be permitted to warn you to the effect that the initial approach may have much to do with the ultimate success of your project. It will not do to antagonize persons working in public health who may be doing the best they can under difficulties and who may be more keenly conscious than anyone else of their own shortcomings. Therefore, before poking your noses around, as you put it in your letter, we suggest that your committee go straight to your city health officer, state your purposes and offer your cooperation. I am not acquainted with your city health officer, but if he is like those whom I do know—and I was one of them for many years—he will welcome the cooperation of a group of public spirited citizens who may be able to help him get results which he has been trying hard to get perhaps with indifferent success.

"You should also, of course, proceed with the full knowledge and approval of the officers of your county medical society in anything you may undertake.

"It will also be well for you to become acquainted with your local tuberculosis association, if any, and with any other health projects in the community which may be sponsored by the American Red Cross or similar agencies. Having become acquainted with all these agencies and established friendly relationships, you will find many opportunities for helpful cooperation.

"It is best not to embark upon too ambitious a program at the outset. It is frequently wise to take one step at a time and let developments decide what is to be done next. The old adage that Rome was not built in a day is applicable to the public health situation. There is sometimes a tendency to get excited about unsatisfactory conditions and in the effort to remedy them suddenly and without due regard to all community forces involved actually to delay rather than to expedite the desired achievement.

"After you have made your community contacts and before you endeavor to sponsor any proposals for change or reorganization, it would be wise to procure for study by your committee one of the books on public health administration in the United States, of which the one perhaps best suited for your purposes because of its brevity and comprehensiveness is *Public Health Administration in the United States* by Wilson G. Smillie, published by Macmillan Company, New York, and priced at $3.50. You should also write to the American Public Health Association, Committee on Administrative Practice, 1790 Broadway, New York, for information about the Interchamber Health Conservation Contest of the United States Chamber of Commerce and should then interest your city Chamber of Commerce in the proposition of competing. You may not get an award for several years, but the competition will stimulate interest and procure constructive local publicity, and if you do get an award, you will find progress much easier thereafter.

"Throughout your efforts you will find that you will go much farther through an attitude of helpfulness than you possibly could by displaying hostility or a sharply critical approach. As you learn about what other cities have done and what they have not done, you will find that facts which appear startling to inexperienced investigators may perhaps be less startling, while conditions which you have come to accept as inevitable prove susceptible of correction.

"May we suggest also that 'crusading' needs to be done with as much tact and finesse as enthusiasm and also that a crusade to be effective needs to be sustained beyond the first impetus.

"A book published about fifteen years ago and entitled *Health Survey of 86 Cities*, published by the American Child Health Association and priced at $3.00, gives interesting information as to their status at that time. Whether or not your city is included, we cannot tell you because we have not a copy available, but the experience of other cities should be helpful to you. Incidentally, out of this survey grew many of the improvements in city health work including the Chamber of Commerce contest above mentioned.

"While writing to the Committee on Administrative Practice it would be advisable to remit $1.00 for a copy of the *Appraisal Form for City Health Work*."

TWENTY-FIVE YEARS AGO

The following items are taken from the January 1916 issue of THE JOURNAL:

Lake County is working hard for a new tuberculosis hospital. A petition with three thousand signers recently was sent to the county commissioners by the Lake County society.

* * *

The Sullivan County Medical Society issued a souvenir calendar for 1916; among other things it contained pictures of Dr. Orran Stoddard and Enoch J. Yeager, sixth and seventh presidents of the society.

* * *

The new officers of the Gary Medical Society are: president, Dr. Yarrington; vice-president, Dr. Green; secretary, Dr. Skeen; treasurer, O. O. Alexander; censor, Schaible. The society had a balance of $54.65 in the treasury.

* * *

"Trachoma is not rare in Indiana. It is now reported from twelve counties and doubtless will be found in many others. So many cases have appeared in Indianapolis that the local board of health has employed a visiting nurse to aid in the fight against the disease."

* * *

"One of the readers of THE JOURNAL inquired as to the number of doctors who actually read the well-prepared society reports published in every number of THE JOURNAL. This doctor has found that for the most part these reports are full of meat and should furnish splendid mental food for a large number of doctors who need such nourishment, but he has discovered among his acquaintances the ones who really need the nourishment the most are the ones who are not taking it." Like Dr. Bulson, we opine that this inquirer has found, like many of us who have been active in county and state medicine for many years, the truth of that statement.

* * *

Robert E. Ansley, of Indiana Harbor, died December 14, 1915, at the age of 44 years. He was chief surgeon of the Inland Steel Company.

* * *

The City of Madison recently became up-to-date when it passed an ordinance requiring every household, restaurant, etc., to be provided with galvanized garbage cans with good covers.

* * *

It seems that an Evansville bartender was arraigned in an Evansville court for violating the quarantine regulations relative to smallpox in the home in which he lived. The deputy prosecutor was very much concerned because of his exposure to smallpox from the prisoner as was the judge. Dr. Bulson advised that had the prosecutor and the judge been successfully vaccinated, they would have had no occasion for fear.

* * *

Editor Bulson comments on the ire of some members of the dental profession which was aroused "because the Roentgen ray is showing up some of their very careless and inefficient dental work. Fillings, crowns, and bridges have covered up much real dental pathology." (Bulson was a past master at such comment as the above, fearlessly saying just what he thought).

* * *

Dr. A. C. MacDonald of Warsaw has been quite seriously ill.

* * *

Dr. O. O. Alexander has been chosen to succeed Dr. J. R. Yung as attending physician at Rose Dispensary in Terre Haute.

The Secretaries' Conference

FOURTH FLOOR, INDIANAPOLIS ATHLETIC CLUB, INDIANAPOLIS
SUNDAY, JANUARY 19, 1941

PROGRAM

1:00 p.m.—Call to order and opening remarks by R. L. Hane, M.D., Fort Wayne, chairman.

1:05 p.m.—Welcome to secretaries by A. M. Mitchell, M.D., Terre Haute, president, Indiana State Medical Association.

1:10 p.m.—"Administrative Problems in Care of the Indigent Sick," Leo X. Smith, Indianapolis, legal advisor, Indiana Township Trustees Association.
J. S. Leffel, M.D., Connersville, chairman, Medical Relief Committee, Indiana State Medical Association.

1:30 p.m.—Questions and discussion from the floor.

1:40 p.m.—"Problems of Health in Idustry," Louis W. Spolyar, M.D., Indianapolis, chief, Bureau of Industrial Health, Indiana State Board of Health.
Discussion: E. S. Jones, M.D., Hammond.

2:05 p.m.—"The Medical Defense Program in Indiana," Captain Glen Ward Lee, M.D., chief, Medical Division, Indiana Selective Service, Indianapolis.
Discussion: Charles R. Bird, M.D., Indianapolis, chairman, M-Day Committee, Indiana State Medical Association.

2:35 p.m.—Questions and discussion from the floor.

2:45 p.m.—Rest period.

3:00 p.m.—"Attendance at County Society Meetings," Robert A. Fargher, M.D., LaPorte, secretary, LaPorte County Medical Society.
Discussion.

3:15 p.m.—"Everything Counts," Creighton Barker, M. D., New Haven, Connecticut, executive secretary, Connecticut State Medical Society.

3:35 p.m.—"Current Legislation," Norman M. Beatty, M.D., Indianapolis, and J. William Wright, M.D., Indianapolis, co-chairmen, Committee on Public Policy and Legislation of the Indiana State Medical Association.

Five-Minute Talks by:

3:45 p.m.—E. M. Shanklin, M.D., Hammond, editor THE JOURNAL.

3:50 p.m.—M. A. Austin, M.D., Anderson, president-elect, Indiana State Medical Association.

3:55 p.m.—Thomas A. Hendricks, Indianapolis, executive secretary, Indiana State Medical Association.

4:00 p.m.—Cleon A. Nafe, M.D., Indianapolis, chairman, Executive Commtitee, Indiana State Medical Association.

4:05 p.m.—F. T. Romberger, M.D., Lafayette, chairman of the Council, Indiana State Medical Association.

4:10 p.m.—"Legal Matters," Albert Stump, Indianapolis, attorney for the Indiana State Medical Association.

4:20 p.m.—Election of chairman for 1941.

4:25 p.m.—Round table discussion.
Topics: "What Are County Societies Doing as to Membership of Men in Military Service?"
"Types of Membership."
"When and How to Transact Routine Society Business."
"Membership of the Colored Physician."

5:30 p.m.—Dinner.
Principal speaker—To be announced.

President's Page

A most successful year for the Indiana State Medical Association has just been closed.

A new year is starting amidst turmoil, destruction, and unrest throughout the world. All of which is affecting the defense, economic, social and political situation in these United States, and this in turn creates many problems for the medical profession.

The National Defense is calling upon the medical profession to separate the physically fit from the physically unfit. This is being done in a very satisfactory way for the defense forces of our country, and at the same time it is creating many new economic and social problems. Some of these problems are the finding of tuberculosis, improper vision, and bad teeth. At the same time venereal disease is being placed where it belongs at about one or two per cent instead of twenty per cent.

The outcome of these findings brings to light many problems for the correction of these defects and their rehabilitation.

The situation for the doctors is complicated at this time by a new Congress, a new legislature, and we must also not overlook the fact that the indictment of the medical profession by the Federal Government can still be resuscitated. We have the usual criticisms of the doctors by laymen who, as of old, have failed to see both sides. In other words, the situation of the doctors in this everchanging picture is dependent on how clearly the law-making bodies can see eye to eye with the medical profession. And it is going to take the wholehearted support of all to get a really broad viewpoint.

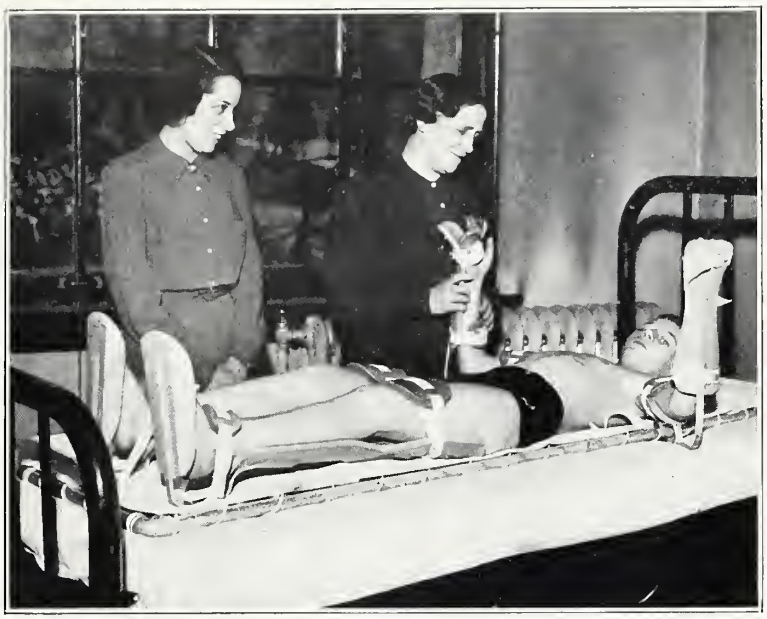
When problems of a social, economic and political nature are presented to your elected representatives for solution, and after careful consideration the problems are solved for what they believe is the best for all concerned, then it will be your duty and it will be necessary for every member of this Association to concur in these decisions.

Without your sincere and wholewhearted support, your officers of this Association are in a bomb-proof shelter. Do you want them in this position?

The Season's Greetings to you!

A. W. Mitchell

NATIONAL FOUNDATION FOR INFANTILE PARALYSIS, INC.



Use of the Bradford frames and Toronto splints. In this picture—Miss Louise Bailey, physical therapist; Miss Mary Ferguson, supervisor of orthopedic nurses, and a boy scout from Troop No. 86, French Lick.

As you read this message the state organization of the National Foundation for Infantile Paralysis, Incorporated, is conducting its annual drive for funds. This message is a request to the physicians of the State of Indiana to support this worthwhile cause.

During the infantile paralysis situation which prevailed in our state during the past summer and fall many physicians were assisted in the care of their patients through the efforts of this organization. Hundreds of Toronto leg and arm splints, as well as Bradford frames, were sent to the State of Indiana on a loan basis by this organization. Respirators were also made available to hospitals where their need was made known.

In addition to the physical properties sent by this organization into the state, medical groups were favored by the presentation of symposia on infantile paralysis by Doctors Lewin and Levinson of Chicago. These physicians were furnished through the courtesy of the National Foundation for Infantile Paralysis, Incorporated.

During the polio situation of the past summer there were problems concerning the distribution of appliances furnished by this organization, as they were available only in Indianapolis and South Bend. The Division of Services for Crippled Children was most active in attempting to supply splints and frames to physicians on request from these two centers, but we were unable in every instance to supply the needed materials.

Should this situation repeat itself during the coming summer, there should be no excuse for the lack of these materials to treat individuals afflicted with acute anterior poliomyelitis in each community. My plea is for you to support your local organization in the establishment of active chapters of the state organization. Chapters of the state organization, on request to the National Foundation, are eligible to receive splints and frames. With active chapters functioning throughout the state, requesting and receiving necessary splints and frames, it is evident that individuals afflicted with acute anterior poliomyelitis will receive more prompt and effective treatment. In that your patients will be the recipients of the assistance of this organization, it is believed that your support to this organization should be generously given. Your assistance may be rendered in any manner you deem advisable, whether by speaking before local groups, serving on committees for the arranging of programs to raise funds, writing articles for local papers, serving in an advisory capacity to local organizations or by the contribution of money. Whatever you do, please contact the chairman of your local organization and offer your services for this worthwhile organization.

SOME OBSERVATIONS ON THE MEDICAL CARE OF THE INDIGENT*

J. S. LEFFEL, M.D.
CONNERSVILLE

One year ago the Indiana State Medical Association appointed a committee to study the problems incident to the care of the indigent. This was the first time a committee was ever appointed for this specific purpose. I appeared before the Indiana Association of Township Trustees very soon after the appointment. At that time I said that I believed it was your purpose to make an honest effort to obtain adequate care for the indigent at a reasonable cost; also that it was the purpose of the Indiana State Medical Association to get adequate care for the indigent. I said further that two groups such as ours with a common purpose should, with proper cooperation, experience no difficulty. Today, after twelve months, it is a pleasure to say that, with a few exceptions (there are some), we have had cooperation and the indigent have had adequate care at a reasonable cost.

During the year we did not recommend any specific plan. We felt that conditions, circumstances, and attitudes of people were so different in the 1016 townships that to try to make any specific plan fit all localities would be like trying to fit square pegs into round holes. We found this problem very complex. We considered many of its phases, read many pamphlets, tried to appraise many columns of figures and statistics, read a few books including "Mein Kamph" (and if you especially like specific plans you can find them in that book), and "Grapes of Wrath," which depicts the most distasteful picture ever painted on the subject of indigency. It is very significant that more people read "The Grapes of Wrath" last year than any other book. It will give you a very popular conception of the subject of indigency if your mind is sufficiently tiled to "take it."

After all our studies, it is only being candid to say that it is my opinion that the best way if not the only way to solve this problem at this time, serving the best interests of the taxpayer, the overseer of the poor, the physician and the indigent sick, is an honest, incorruptible effort toward cooperation between the one who pays (the trustee), the one who receives (the physician), and the one who is served (the indigent sick). We are also convinced this generally can be done best by an agreement between the trustee and the regular county medical society and not between one single doctor and the trustee. With the cooperation that prevailed generally throughout the state during the past year, we are in as good a position as any other state; and here again to avoid letting it appear that we, the trustees and the physicians, are just patting ourselves on the back, permit me to remind you that there have been exceptions as the newspapers, from time to time, have illustrated by example.

Speaking of plans and how they will work for the good of all, much depends upon your viewpoint: whether you are pitching, catching, batting, or possibly just one who paid admission into the game —a taxpayer. It depends on the attitudes of all people concerned. It is a human relationship and is as variable as the characteristics of people.

There are physicians whom we know who have found it profitable to encourage indigency. We also know trustees who have likewise found it profitable to encourage indigency. These instances are exceptions and not the rule. However, during the last few years there has been a large increase in the number of people who seek help, an increase in the number of people who desire to be classified as indigent so that they may receive help not only in the matter of medical aid, but also food, clothing, and shelter. This obvious change in people's attitudes toward governmental agencies makes clear the reasons why, in the presence of improved economic conditions, we find the cost of the medical care of the indigent increasing every year—60% more in 1940 than in 1933.

There are a great many people who believe you can buy health at so much per head—and they, therefore, conclude that if a man owns a home and a bank account, he is guilty of some crime scarcely less than murder if babies die in families who have neither. Contrary to this belief, hospitals in the past were established on a voluntary basis with the support of the Catholic, the Protestant, the Jewish, and other churches, and of trades and of communities. The care of the sick has been a fundamental spiritual motive in every great religion since the earliest times. Those who gave of their time and their substances were motivated by benevolence and good will, and those who received did so with their hearts full of gratitude. Politics, politicians, and governmental agencies played no part in a man's ethical obligations to his fellowmen. Likewise, medical codes of ethics, fifty years ago, frankly stated that the worthy poor should receive medical services regardless of their ability to pay. And after faithful service had been rendered, every patient owed a debt, at least a debt of gratitude, to the physician of his own choice. The family physician was the father confessor in every home. He knew the aches and ills of the body, mind, and heart. He knew the skeletons in every closet, and he did not drag them out for observation by the county auditor, the county commissioners, and the

* Talk presented before Township Trustees' Association. Dr. Leffel is chairman of the Medical Relief Committee of the Indiana State Medical Association.

trustee. The greatest interest a physician could have was the interest in his patient, and with that is eternally related the interest in the art he practices.

More than fifty years ago, Bismarck in Germany established the concept that the state might take over for the people in the lower income classes many responsibilities which they formerly assumed themselves. Then followed Karl Marx, Lloyd George, and many other widely known world statesmen who found it politically profitable to incorporate into their philosophies the devaluation of individual responsibility and self-reliance and to substitute the dependence of great groups of people on an all powerful, paternalistic government and its personalities. This concept of the state, this group aggression, this world trend, has found its way into American society. This trend which seems to gain momentum as the years go by has changed the attitudes of great groups of people, and they now desire to receive government assistance rather than be responsible, self-reliant individuals. This world trend accounts for the fact that, in the face of improved economic conditions, the cost of medical relief has increased in Indiana and elsewhere every year since 1933. Neither the trustee nor the physician is particularly at fault. It is a world trend.

Because of this increased cost and these highly publicized, before-mentioned exceptions, there has been talk of changing our whole system of poor relief. Some other governmental agency is to be charged with the responsibility of administering to the poor. Now legislation does not change trends, except to accelerate them, but it does follow trends. We do not believe that a change in the poor laws will reduce the total cost of medical relief.

Now, concerning those exceptions to which I have so often referred, I want to make a few observations. The fact that some member of the medical profession or some member of the Trustees' Association happens to—shall I say make a mistake—can be no good argument for changing the system, and it can be no good reason for a radical change in the law because, in either instance (in my opinion) these mistakes are due to a lack of thought, a lack of knowledge, a lack of understanding, or to a deliberate attempt to ignore an age-old code of ethics or to violate a public trust. To quote Thomas R. Marshall, one of Indiana's illustrious statesmen, "You can't legislate righteousness into people." It is grossly unfair to criticize a system because some doctor occasionally violates his ethical obligation to humanity or some trustee violates a public trust.

It is not my intention to be arbitrary in this matter of change. It is no doubt advisable to recommend some changes in those townships in which are located large cities, but it is not reasonable to abandon the principle of "home rule" which works well in 98% to 99% of the townships because 1% or 2% have had to deal with embarassing circumstances.

To support the principle of "home rule," we recommend that the members of every county medical society acquaint themselves with the relief problem and also the tax problem in the townships where they practice. We recommend that a courteous and friendly relationship be fostered between the trustee and the medical society. There must be a mutual understanding made possible through a courteous but frank interchange of opinions.

We were told last year that 16% of the total population were in such financial circumstances as to justify some sort of medical relief; 5% were on direct relief. But now a new factor is injected into the problem—war! Great numbers of able bodied men are fast being removed to training camps. Defense industries are employing millions of laboring men. Consumers goods industries are anticipating increase in production and are now calling back to work men who have long been idle. Taxes already high are going higher. Half the civilized world is involved in a vicious, devastating war. Democracies are threatened. Government officials have in the last few days expressed the view that all government expenditures except those connected with national defense must be "cut to the bone." The time is fast approaching when every man, rich or poor, must stop taking *from* and do his utmost *for* the government he loves so much—American Democracy. I pledge you our support to that end.

DR. ABELL'S COMMENTS ON MEDICAL PREPAREDNESS

(Following are the comments of Dr. Irvin Abell, chairman of the Preperedness Committee of the American Medical Association made before the Second General Meeting of the Indiana State Medical Association at the French Lick session, October 31, 1940. Your editor believes that Dr. Abell's remarks may clear up some misunderstanding as to the status of physician's of draft age.)

I know that you will be interested in learning that I have recently received a letter from Governor Townsend, of Indiana, in which he paid a high tribute to the doctors of Indiana upon their splendid cooperation in the Medical Preparedness plans. In reply I told him that I felt sure that the Indiana physicians appreciated his cooperation with them in medical matters.

Indiana has made a splendid record in answering the questionnaires sent out by the Military Preparedness Committee of the A.M.A. At the present time Kentucky is ahead with 92 per cent, and Indiana follows closely with 78 per cent. Since Indiana has many more physicians than has Kentucky, possibly your State is entitled to more credit than mine.

There are 179,000 doctors entitled to practice in the United States by means of legal registration, and a questionnaire was sent to each of these. Between 140,000 and 145,000 are in active practice, while the remainder have retired because of age, disability, or having sought other pursuits. So far, 115,000 replies have been received, of which over 50,000 have been transferred to punch cards. These punch cards contain the information furnished by the questionnaires and by using them in the International machine, one may in a few minutes get a list of men qualified in any branch of medicine. This work has been undertaken by the A.M.A. as a patriotic contribution to the National Defense Program and has entailed the employment of an additional sixteen personnel in the A.M.A. office. It is hoped that within two or three months information will be at hand upon every doctor in the country.

The only exemption in the Selected Service Act applies to students of theology and accredited ministers of the gospel. Deferments will be made to students in accredited schools, pursuing a course of study leading to a degree in Arts or Sciences and also to those who occupy essential positions in their community. In order to safeguard effectively the health of the population and to furnish medical service to the armed forces, the medical profession feels very strongly that medical students should be permitted to finish their undergraduate education and, at least, one year of internship before being inducted into service. The Selective Service Act, however, provides deferment for students only until June, 1941; after that date any deferment granted to medical students, to interns, and to residents will be the responsibility of the local Draft Boards. While doctors should be willing to make such adjustments as may be needed in the event of an emergency, it would be unfortunate, if in the Defense Program, the classes of medical schools, the teaching program of medical schools, and hospital service should be disrupted by an undue number of students, of interns, and of residents being called into service. This can be avoided only by applying to the local Draft Boards and to the Appeal Boards for the deferment of those essential to these three activities. There are approximately 15,000 members of the Medical Reserve Corps and these will be largely drawn upon to furnish medical service for the first increment of selectees.

It is estimated that by July, 1941, the total strength of the Army will be approximately 1,400,000 men, for which the services of 10,000 doctors will be required. The length of service of the vast majority of doctors will be one year, at the end of which time they will be transferred to the Reserve Corps on an inactive status. The information being gathered by the Military Preparedness Committee of the A.M.A. will make it possible to employ the services of doctors in positions for which their training and qualifications fit them, and thus to avoid some of the mistakes and misfits which occurred in World War No. 1.

On September 19th President Roosevelt appointed a Health and Medical Committee, a subcommittee of the National Defense Council; its members are Surgeon-General McGee of the Army, Surgeon-General McIntyre of the Navy, Surgeon-General Parran of the United States Public Health Service, Dr. Lewis Reed, Chairman of the Medical Division of the National Research Council, and your humble servant, representing the civilian profession. The duties of this Committee are to advise the National Defense Council on health and medical matters affecting National Defense and to coordinate all health and medical efforts. The Medical Division of the National Research Council has at present 38 committees, each studying some problem in its relationship to Military Medicine, such for instance as shock, chemotherapeutic treatment of wounds, blood transfusion, aviation medicine, tuberculosis, neuropsychiatry, nutrition, etc. The Health and Medical Committee has appointed sub-committees on dentistry, medical education, hospitals, nursing, industrial health and medicine, and negro health. An effort has been made to secure the advice and help of those whose qualifications in their respective fields entitle them to serve with advantage to the country.

It gives me much pleasure gratefully to acknowledge the unanimous offer on the part of the profession at large, of the various National and Special Medical Societies, of the hospital groups, in fact, of all agencies relating to health and medicine to cooperate fully and freely in the Defense Program.

UNDER THE CAPITOL DOME

NEEDS OF CENTRAL STATE HOSPITAL

Immediate building needs at the Central State Hospital for mental cases are a receiving unit for both men and women, two cottages to replace the old building for men, one of these designed for tuberculosis patients, and a kitchen and a dining room for the department for men, Dr. Max A. Bahr, superintendent, points out in his annual report.

The old building for men was erected in 1848.

"It would be wise to set one of these cottages aside as a cottage for the care of tuberculous mental patients," Dr. Bahr said in connection with the proposal to construct the two new buildings. "The cottage should be especially built and equipped, and should be staffed with nurses well informed and qualified in the treatment of pulmonary tuberculosis."

"To make such a provision is highly necessary," Dr. Bahr's report said. "Pulmonary tuberculosis among mental cases, in particular among dementia praecox patients, remains at a high level. Observations have proved beyond a doubt that tuberculosis patients transmit tubercle bacilli to members of the personnel as well as to other patients. This danger is particularly great in institutions, because many of the tuberculous cases due to their incapacitated mental state, will not use ordinary precautions which can be taught to a mentally normal tuberculous individual."

The report added that since a separate building for tuberculous patients can still be included in the replacement program at the institution, no special appropriations will be necessary for such a unit.

DR. PAUL JOHNSON SUPERINTENDENT OF RICHMOND STATE HOSPITAL

Dr. Paul Johnson of Richmond has been appointed superintendent of the Richmond State Hospital to succeed the late Dr. Richard Schillinger. The selection was announced by Thurman A. Gottschalk, director of the state Department of Public Welfare. Dr. Johnson took over his new duties December 10.

Dr. Johnson replaced Dr. E. F. Jones, who had been serving as acting superintendent since the death of Dr. Schillinger several weeks ago. Dr. Jones has been ordered into army service.

The new superintendent practiced medicine many years at Richmond and formerly was an assistant physician at the Richmond State Hospital, serving in that capacity for about ten years. He is now neuro-psychiatric consultant at the Reid Memorial Hospital at Richmond. He was graduated from the Indiana Medical College in 1903 and was licensed that year to practice in this state. During the World War he was assigned to Base Hospital 118 as neuro-psychiatrist and served overseas for nine months.

ADMISSIONS AT STATE HOSPITALS

Men and women 70 years of age and over composed the biggest age-group among persons admitted during the last fiscal year as patients at the Central State Hospital and the Richmond State Hospital for mental cases.

The annual reports of both institutions showed a combined group of new admissions of 819 persons, of whom eighty-three were in the oldest age-group. They included sixty-four men and fifty-one women.

Total new admissions of all ages at the Central hospital were 412, including 201 men and 211 women, and at the Richmond hospital, 302 persons, including 145 men and 157 women.

The annual reports also showed that the greatest number of deaths within the two institutions also were in this same elderly age group, cerebral arteriosclerosis leading in the causes of death at Richmond, and senile psychoses at the Indianapolis institution.

Both reports tallied in showing that the largest group of new admission (all ages) came from the ranks of married men and women. Marital status was shown as follows: Central State Hospital—men: single, 60; married, 87; widowed, 27; separated, 8; divorced, 14; unascertained, 5. Richmond State Hospital—men: single, 35; married, 71; widowed, 17; separated, 3; divorced, 15; unascertained, 4. Central State Hospital—women: single, 33; married, 97; widowed, 40; separated, 17; divorced, 22; unascertained, 2. Richmond State Hospital—women: single, 26; married, 88; widowed, 26; separated, 2; unascertained, 1.

Records of the degree of education of first admissions to the institutions showed that the largest group comprised persons with common school training. The 412 new admissions at the Central State Hospital were divided, on this basis, as follows: illiterate, 12; reads and writes, 54; common school, 120; high school, 59; college, 44; unascertained, 13. For the Richmond institution: illiterate, 5; reads and writes, 14; common school, 180; high school, 78; college, 19; unascertained, 6.

As would be expected, cities and towns sent a major part of the new patients to both institutions. To both, the urban centers added 563 patients, and the rural communities 144. Environment of seven new patients was not learned.

The economic condition of the new patients also was recorded, and was listed (for both institutions) as follows: dependent, 283; marginal, 349; comfortable, 70; unascertained, 12.

Of the total 714 new patients admitted to the two institutions, 578 did not use alcohol; 57 used it temperately; 57 were intemperate, while its use or not was not ascertained in 22 cases.

Deaths

John Meredith Burgin, M.D., of Bedford, died in the Dunn Memorial Hospital on November seventeenth, aged thirty-three. Dr. Burgin graduated from the University of Louisville School of Medicine in 1936. He was born at Whitestown, Ind. He served as a First Lieutenant in the Medical Corps at the Station Hospital at Fort Dix, New Jersey until September, 1940, when he located at Advance, Indiana, and became a resident of Bedford only a week prior to his death. He was a member of the Kentucky State Medical Association and was a fellow of the American Medical Association.

* * *

Robert E. Conway, M.D., of Indianapolis, died suddenly at his home on November thirtieth following a heart attack. He was fifty-one years of age and was a native of Goodland, Indiana. Dr. Conway graduated from the Indiana University School of Medicine in 1916, and had specialized in otolaryngology. He was a member of the Indianapolis Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Andrew J. Cook, M.D., died suddenly at his home at Flora, Indiana, on November twentieth. He was found dead, sitting in a chair, and death was attributed to a heart attack. He was eighty-one years of age. Dr. Cook graduated from the Eclectic Medical College of Cincinnati in 1884, and had practiced medicine at Flora from 1883 until his retirement in 1896.

* * *

Thomas A. Hays, M.D., of Burns City, died November twenty-seventh at the Daviess County Hospital in Washington, Indiana, of a chronic heart lesion. Dr. Hays was seventy-eight years of age, and had practiced medicine in Burns City for forty-eight years. He graduated from the Medical College of Indiana, Indianapolis, in 1892. He was an honorary member of the Daviess-Martin County Medical Society, an honorary member of the Indiana State Medical Association, and a member of the American Medical Association.

* * *

Anna Grover Kaufman, M.D., of Goshen, aged eighty-two, died at her home on December eighth. She graduated from the National University of Arts and Sciences Medical Department, St. Louis, in 1890.

* * *

William J. Martin, M.D., of Kokomo, aged seventy-one, died at his winter home at Winter Haven, Florida, on November nineteenth. Dr. Martin graduated from the St. Louis College of Physicians and Surgeons, and had specialized in ophthalmology and otolaryngology. He retired from practice a few years ago. He was a member of the Howard County Medical Society, of the Indiana State Medical Association, and a member of the American Medical Association.

* * *

Richard Schillinger, M.D., widely known Richmond physician, died at the Good Samaritan Hospital at Cincinnati, Ohio, on November twenty-first. Dr. Schillinger graduated from the Miami Medical College, Cincinnati, in 1894. He was sixty-nine years of age. Dr. Schillinger had served as superintendent of the Richmond State Hospital since 1933, and prior to this appointment he had served as an officer in many civic organizations. He was mayor of Richmond from 1906 to 1910, had served as president and secretary of the Richmond Board of Health, and had served as president of the Wayne County Medical Society. He was a member of the Wayne County Medical Society, a member of the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

John B. Talmage, M.D., of Lawrenceburg, died December fourth at the age of seventy-four. He graduated from the Cleveland-Pulte Medical College in 1903.

* * *

Frank C. Wade, M.D., prominent physician at Howe, Indiana, and president of the LaGrange County Medical Society, died November fourteenth at his home. He had been ill for some time. Dr. Wade graduated from the Wayne University College of Medicine, Detroit, Michigan, in 1900, and had practiced at Howe for forty years. Dr. Wade was a member of the Lagrange County Medical Society, a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Charles E. Duffin, M.D., of Richmond, aged sixty, died on November twenty-first after a long illness. He graduated from the Kentucky School of Medicine, Louisville, in 1903.

* * *

William A. McBride, M.D., of Indianapolis, died on December fourteenth at St. Vincent's Hospital. He was sixty-four years of age. Dr. McBride graduated from the Indiana University School of Medicine in 1909. He enlisted in the United States Army and served as a captain in the medical corps during the World War. Dr. McBride was a member of the Indianapolis Medical Society, the Indiana State Medical Association, and the American Medical Association.

News Notes

Dr. Crystal Ray Slick has moved to Lynn, where he will conduct a general practice.

Dr. Alex Govorchin has opened an office for general practice at Munster, Indiana.

Dr. B. E. Lemmon has moved from Martinsville to Advance where he will conduct a general practice.

Several members of the class of 1904 of the Medical College of Indiana paid honor to Dr. J. L. Allen of Greenfield, in November, on the occasion of his sixty-sixth birthday anniversary.

Dr. Robert J. Miller, formerly of Nashville, has opened an office in Evansville.

Dr. Arthur J. Van Winkle of Valparaiso and Mrs. Mabell Myers of Valparaiso were married December 2, 1940.

Dr. George Wyman Willison of Evansville and Miss Mary Allison Hinkle of Cincinnati were married in Cincinnati, November 23, 1940.

Dr. Paul S. Johnson of Richmond has been named superintendent of the Richmond State Hospital to succeed the late Dr. Richard Schillinger. Dr. Johnson has practiced in Richmond for many years and at one time was assistant physician at the Richmond hospital.

Dr. Max Bahr of Indianapolis has been named consulting psychiatrist on the board of examiners for the United States Penitentiary at Terre Haute. Dr. Bahr was named by the U. S. Attorney General. The other two members of the board are named by the U. S. Surgeon General and by the penitentiary warden.

Dr. George S. Row of Osgood held his annual "stork party" during the holiday season. This is the third year that Dr. Row has entertained the children whose birth he attended.

Dr. W. W. Ayres of Hartford City has moved his office from High Street to the Newbauer property on West Franklin Street.

The place of the medical profession in the program of national defense and the medical mobilization of Canada are among the topics to be discussed at the Thirty-seventh Annual Congress of the Council on Medical Education and Hospitals of the American Medical Association to be held at the Palmer House, Chicago, February 17 and 18.

The fifty-fifth annual meeting of the St. Joseph County Medical Society was held at the Oliver Hotel, November fifteenth. The program began at ten o'clock in the forenoon when cases were presented by Drs. Robert Orr, Paul E. Haley, Morris Balla, Louis Sandoz, C. C. Hyde, and K. E. Selby. The forenoon meeting was held at the South Bend Medical Laboratory. In the afternoon, in the Rotary Room of the Oliver Hotel, the following program was presented: Heart Clinic, by Dr. Robert M. Moore, Indianapolis; "Appendicitis in the Female," by Dr. Herbert E. Schmitz, Chicago; "Problem of the New-born Period," by Dr. James L. Wilson, Detroit. A dinner meeting was held in the evening, following which Dr. O. H. Wangensteen of Minneapolis talked on "The Ulcer Problem Viewed from the Standpoint of Etiology and Therapy."

The Mississippi Valley Medical Society offers annually a cash prize of $100, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics) and practical value to the general practitioner of medicine. Contestants must be members of the American Medical Association who are residents of the United States. Contributions should not exceed 5,000 words and must be submitted not later than May 1, 1941. Further details may be obtained from Harold Swanberg, M.D., Secretary, Mississippi Valley Medical Society, Quincy, Illinois.

The Pan-American Congress on Ophthalmology was organized on a permanent basis at the meeting of the first congress in Cleveland, October 11 and 12, under the auspices of the American Academy of Ophthalmology and Otolaryngology. Dr. Harry S. Gradle, Chicago, was elected president; Dr. Conrad Berens, New York, and Moacyr E. Alvaro, Sao Paulo, Brazil, were elected executive secretaries. Vice presidents are Drs. S. Hanford McKee, Montreal, Canada; Frank E. Brawley, Chicago; Edward Jackson, Denver; Tomas R. Yanes, Havana, Cuba; A. Vasquez-Barriere, Montevideo, Uruguay; Jose Pereira Gomes, Sao Paulo, and Enrique Demaria, Buenos Aires, Argentina. Montevideo was tentatively selected as the place of the next meeting, to be held in 1943.

The Fifth National Social Hygiene Day will be held February fifth, 1941. This will be the spearhead of a concerted drive to safeguard men in military and naval training camps and in essential industries from the ravages of venereal disease. The effort this year, a bulletin from the American Social Hygiene Association says, is aimed

at reducing commercialized prostitution to a minimum and keeping syphilis and gonorrhea infection rates as low as possible in army, navy, and defense industrial personnel. Plans for the annual event include more than 5,000 community meetings in all parts of the country and four regional conferences to be held in Philadelphia, St. Louis, New Orleans and Los Angeles.

A. L. Spinning, M.D., of Covington, Indiana, has retired from active practice in Covington and has gone to Michigan City where his address is 130 Superior Street. Dr. Spinning has been secretary of the Fountain-Warren County Medical Society for nineteen years.

Dr. F. G. Sink of Remington was elected secretary-treasurer of the Jasper-Newton County Medical Society and Dr. W. C. Mathews of Kentland was made president. Dr. Sink has received notice that he will be called into the Army service soon, and for the present Dr. Mathews is serving as president and as secretary-treasurer.

MEDICAL HISTORICAL DATA WANTED

The Indiana Association of the History of Medicine desires to make a definite start toward a history of medicine in the State of Indiana. The Association has asked its members to submit, on 3 x 5 cards or slips of paper, the names of any medical men that they consider worthy of mention in the annals of Indiana medical history. Reference to a reliable source of information should be clearly stated and, at the foot of the card, the name and address of the contributor should be given. In the case of data not biographical but having to do with an institution or historical event, a similar card should be made with a subject heading, reference to source material, and the contributor's name and address. Any members of the Indiana State Medical Association who will contribute such material may send it to Miss Ruth McNutt, librarian of the Indiana University School of Medicine, Medical Center, 1040 West Michigan Street, Indianapolis. Miss McNutt will file the material for later use by the Indiana Association of the History of Medicine.

THE THIRD ANNUAL FORUM ON ALLERGY

In response to an apparent demand, the Annual Forum on Allergy was founded three years ago by a group of allergists in the Middle West to afford a forum in which to review the progress of clinical allergy. Annual meetings have been held in Toledo, Ohio, and Chicago, Illinois. This year the meeting will be held at the Claypool Hotel in Indianapolis on Saturday and Sunday, January 11th and 12th, 1941. This offers to the internist, the pediatrician, the dermatologist, the otolaryngologist, and all other physicians an opportunity to bring themselves up to date in this field of medicine over a single week-end. All physicians in good standing in their local medical society are most welcome. There will be a registration fee of five dollars.

PROGRAM

Saturday, January 11, 1941

Registration at the Forum Headquarters Suite.
This offers two hours of informal discussion.

11:00— Study Groups—Series A

12:30 p.m. Note attendance requires pre-Forum registrations. Registrations should be mailed to Dr. Tell Nelson, 636 Church Street, Evanston, Illinois.

Topics	*Instructors*
1. Atopic Eczema	Dr. Karl Figley, Toledo, Ohio
2. Urticaria	Dr. Ethan Allen Brown, Boston
3. Symptomatic Treatment in the Case of Bronchial Asthma in which Cause Cannot be Determined	Dr. Milton Cohen, Cleveland
4. Mold Allergy	Dr. S. M. Feinberg, Chicago
5. Allergic Coryza	Dr. French Hansel, St. Louis

12:30—Subscription Luncheon

2:00-3:30 p.m.—Study Groups—Series B

1. Atopic Eczema	Dr. Rudolph Hecht, Chicago
2. Urticaria	Dr. Jonathan Forman, Columbus
3. Symptomatic Treatment in the Case of Bronchial Asthma in which the Cause Cannot be Determined	Dr. John Sheldon, Ann Arbor
4. Mold Allergy	Dr. M. B. Morrow, Austin, Texas Dr. Homer Prince, Houston, Texas
5. The Heart in Asthma	Dr. Oscar Swineford, University, Virginia

4:00 p.m.—Special Lecture: Dr. George Waldbott, Detroit, Presiding.

Allergic Manifestations in the Eye, Dr. Albert D. Ruedemann, Cleveland Clinic

7:00 p.m.—Annual Smoker with Informal Discussion and Demonstrations

Sunday, January 12, 1941

SYMPOSIA ON CLINICAL SUBJECTS

9:00 a.m.—Symposium on Bronchial Asthma

Moderator: Dr. B. Z. Rappaport, Chicago

The Importance of the Diaphragm in Bronchial Asthma, Dr. John Mitchell, Columbus, Ohio

The Use of Breathing Exercises in the Treatment of Bronchial Asthma, Dr. I. M. Hinnant, Cleveland, Ohio

The Importance of Rest in the Treatment of Bronchial Asthma, Dr. Barney Credille, Flint, Michigan

The Importance of Nutrition in Bronchial Asthma, Dr. Howard Lee, Oshkosh, Wisconsin

Question and Answer Period

10:00 a.m.—Symposium on Insects as Allergens

Moderator: Dr. Harry Huber, Chicago

Beetles. Dr. Harvey Johnston, Ann Arbor, Michigan

Fish Food. Dr. Karl Way, Akron, Ohio

Moths. Dr. Ralph Mills, Decatur, Illinois

Grain Mites. Dr. Fred Wittich, Minneapolis

Question and Answer Period

11:00 a.m.—Symposium on Allergic Headache

Moderator: Dr. Theodore Squire, Milwaukee

Differential Diagnosis. Dr. S. R. Zoss, Youngstown, Ohio

Value of Diagnostic Procedures. Dr. Myron Weitz, Cleveland, Ohio

Non-Specific Therapy. Dr. E. G. Tatge, Evanston, Illinois
Specific Therapy, Dr. Orville Withers, Kansas City, Missouri
Question and Answer Period

12:30 p.m.—Annual Forum Dinner
Dr. C. B. Bohner, Indianapolis, Presiding
The Presentation of Gold Medal to Dr. Bela Schick for Distinguished and Outstanding Contributions in the Field of Allergy.

2:00 p.m.—The Annual Forum Lecture, by Dr. Bela Schick, New York. Subject: Allergy, Hypersensitiveness and Immunity

Special Lecture

Water and Electrolyte Metabolism in Allergy by Dr. M. M. Cook, St. Louis

INDIANA UNIVERSITY NEWS NOTES

The annual meeting of the Indiana Student Health Association was held at Indiana University Saturday, December 24. Physicians, nurses and faculty members who guard the health of Indiana's approximately 27,000 college and university students were represented at the conference.

Dr. R. H. Stiehm, graduate of Indiana University and now associate professor of clinical medicine at the University of Wisconsin, made the principal address at the meeting on "Pulmonary Tuberculosis Among College Students and Methods for Its Detection." Officers of the Association are Dr. H. T. Nester, Butler University, president; Dr. Edith Boyer Schuman, Indiana University, vice-president, and Miss Ruth Irwin, Purdue University, secretary-treasurer.

Appointment of 28 medical school graduates as interns for next year at the Indiana University medical center has been announced by Dr. W. D. Gatch, dean of the Indiana University school of medicine. Twenty-two of the newly appointed interns are graduates of the Indiana University school of medicine. They are: Victor F. Albright, Bedford; Joseph Eastman, Jr., Indianapolis; Mars B. Ferrell, Fortville; Ray Firestein, South Bend; Lester L. Hardy, Lexington; Laura Hare, Indianapolis; Carroll Hasewinkel, Indianapolis; John Heubi, Jeffersonville; John Johnson, Reynolds; Herbert L. Joseph, Ligonier; Quentin Kintner, North Manchester; John Ling, Hebron; Ralph Nestmann, Wheeling, West Va.; Leo Nonte, Loogootee; Ottis Olvey, Noblesville; Harry Schell, Rome City; Lawson Smith, Indianapolis; Destiny Storey, Washington; George A. Vail, Fort Wayne; Donald Vivian, New Castle; J. T. Whallon, Indianapolis; H. Haskell Ziperman, New York City.

Others and the schools they attended are as follows: George M. Johnson, Campbellsburg, University of Louisville; John Read, Columbus, Ohio, Ohio State University; Glenn Q. Voyles, Omaha, Neb., University of Nebraska; Ambrose Estes, Columbia, Mo., University of Pennsylvania; Charles E. Test, Indianapolis, University of Chicago, and Robert C. Randolph, University of Wisconsin.

INFORMATION AND ADVICE FOR PREMEDICAL STUDENTS

Requirements for Admission to the School of Medicine. Candidates for admission to the School of Medicine are judged on character, personality, health and scholarship. Every candidate must submit the names of five persons, residents of his home community, who can give information on his reputation. One of these persons should be the principal of his high school. The candidate must also pass a satisfactory physical examination and submit a recent photograph of himself. No applicant whose scholastic standing and premedical work is lower than C (as interpreted at Indiana University) will be considered for admission.

Deadline for Applications. All applications for admission to any freshman class must be filed prior to the first of March. Applications filed after this date will be considered only in case there is a vacancy in the class. Application blanks may be obtained from the Office of the Dean, Indiana University School of Medicine, Bloomington, Indiana, and should be returned thereto.

Every applicant for admission must appear in person before the Committee on Admissions, consisting of twelve members of the faculty of the Medical School. This Committee will accept or reject the applicant after careful consideration of his qualifications.

Explanation of Foregoing Requirements.

Character and Personality. The Committee on Admissions will make an earnest effort to satisfy itself that every candidate it accepts has integrity of character. Honesty, truthfulness, good habits, industry, steadfastness of purpose, ability to get along with classmates and teachers, willingness to accept and profit by criticism, and kindly consideration for the rights of others are characteristics which the Committee will regard as indispensable.

Care of personal appearance, dignified and pleasing manner and carefully considered speech will make a favorable impression on the Committee.

Good Health. Good health, both mental and physical, is an almost indispensable qualification of the student of Medicine.

Scholarship. Applicants for admission to the School of Medicine must show credit for three years of collegiate work. Of the 94 semester hours so spent, 71 hours must be devoted to required subjects, while the remaining 23 hours may be spent on elective subjects.

Semester Hours Required

Modern Language	10
Chemistry (General and Organic)	16
Zoology (9), Embryology (3)	12
Physics	10
Mathematics 104m	2
English Composition	6
Psychology	3
Groups IV and V	12*
Total	71

* *See note on following page.*

Recommended Electives

Quantitative Analysis	5
Biophysical Chemistry	1
Heredity and Eugenics	2
Greek and Latin Derivatives	2
Public Speaking	2
English (Comparative Philology)	2
Personal Finance (Business 276)	2
Groups IV and V	6

Recommended, 23 hours from the above 25 hrs.

The courses of Group IV are the following:

History: 101, 104, 105, 203
Government: 101, 202
Economics: 101
Sociology: 101

The courses of Group V are the following:

English: 102, 103, 122
French: Any third- or fourth-year course of a literary character
German: Any third- or fourth-year course of a literary character
Italian: 114*b*, 263, and more advanced courses of a literary character
Latin: 125, 126, 229, 231, 233, 235, 241, 242a
Spanish: Any third- or fourth-year course of a literary character
Fine Arts: 103, 202, 203, 205
Music: 17
Philosophy: 100*a*, 100*b*; 120 or 202, 203; 206, 207

* While twelve hours in Groups IV and V will be accepted as meeting this requirement, six semester hours in each of three different departments and not all of the same group (i.e., minimum of six hours in one group and twelve hours in the other) will be regarded as a more substantial attainment. Courses in philosophy, sociology, and economics are strongly recommended.

Qualitative Requirements. Many applicants present a greater number of semester hours than the minimum requirements. An excess of credit hours is an advantage to the applicant provided that the extra work done is of good quality and of a nature that will aid in laying a better foundation for the study of medicine or contribute to the broadening of his general education. In considering scholastic records of applicants, greater weight is given to the quality of work than to an excess of credit hours over the minimum required number. A scholastic record which shows a repetition of subjects in order to remove grades of "fail," or to raise low grades, will be regarded as of less value than a record showing work of a uniformly good quality. It is, therefore, essential that the scholastic credentials presented to the Committee on Admissions show an honorable record of premedical work. It is expected that the applicant shall have taken the Medical Aptitude Test which is conducted by the Association of American Medical Colleges. This test is held in all premedical schools and should be taken during the third year of the applicant's premedical work. The exact date on which this test will be held will be announced sometime in November.

Fees. A matriculation fee of $5 is charged by the School of Medicine. This fee is not returnable, unless the application for matriculation is refused. The regular fee for students in the Freshman year of the medical course is $217.50 a year for residents of Indiana, and $422.50 for those from without this State. Of these fees, $35.75 each semester is a Contingent fee. The fee for students in the last three years is $217 a year for residents of Indiana and $422 for non-residents.

A deposit of $10 on the fall semester's fee is required for matriculation. This deposit is not returnable and must be increased to $50 by September 1. The semester fees cover Contingent fee, Library fee, Laboratory fees, and fees for hospital tickets. One-half of the annual fee is payable at the beginning of each semester. No rebate is made for students who have already completed part of the work of the year for which they enroll.

The Board of Trustees reserves the right to revise fees whenever it may be necessary.

General Advice. Competition for admission to the Medical School is very strong. The premedical student must be willing to devote all his energy to hard work. We earnestly advise him not to dissipate his time in social activities or idleness. He should select living quarters which favor undisturbed study. The premedical student is advised to consult Mrs. Alice Nelson, Director of Halls of Residence, Indiana University, Bloomington, Indiana. The University undertakes to provide comfortable and quiet living quarters for all students at a reasonable rate of rent.

The premedical work as above outlined must be completed. (See pps. 24 to 26 of the bulletin of the School of Medicine for arrangement and sequence of courses.) It should be done in a college of liberal arts or a university on the approved list of the Council on Medical Education of the American Medical Association. The student is privileged to take more than three years to complete the premedical requirements, and, in order to prevent a poor scholastic record, it is advised that he do so if he must earn a part of his expenses during the regular school year. In order that he may follow, during the three years of premedical work, the schedule of courses as outlined in the medical bulletin, he is admonished not to fail in courses. A repetition of the courses may make it difficult for the student to arrange for his schedule of work. A transcript of record is regarded as poor when it shows that, on account of poor work, the student was required to repeat a number of courses.

It is the hope of the faculty of the Medical School that the premedical student will work for a knowledge of each subject he studies rather than for a grade. The student is advised to master each lesson and to summarize it, preferably in writing, before going to class. The Medical Faculty places great emphasis on clear and concise expression. We expect the premedical student to show maturity of thought and conduct and that steadfastness of purpose which the study of medicine demands.

Admission. All applicants will be interviewed by a Committee on Admissions consisting of 12 members of the faculty of the Medical School. This Committee will be divided into four subcommittees of three members each. The credentials of appli-

cants for admission are assigned to the subcommittees which examine them and establish a rating for them. After the applicants have been interviewed and their credentials examined by the subcommittees, the members of the freshman medical class will be selected by the general committee. Applicants will be notified of their acceptance or rejection. Any applicant who is rejected by a subcommittee shall have the right of appeal to the general committee. Applicants will be notified as to the time and place they are to appear before the Committee.

Out of State Students. In the selection of applicants, preference will be given to students who are legal residents of the State of Indiana. Not more than two students of any one state other than the State of Indiana will be accepted. If the applicant is an out of state student, the premedical work must average B (84 to 95 percent) or better, in general and in sciences, even though the nonresident should complete his premedical work at some Indiana college or University.

Transcript of Scholastic Record. In the transcript of the applicant's scholastic record at a school other than Indiana University, his grades should be recorded in percentages. This will avoid confusion on the evaluation of letter grades.

Admission Committee, or Examining Committee: Dr. C. H. McCaskey, Dr. Matthew Winters, Dr. J. K. Berman, Dr. David Boyd, Dr. C. J. Clark, Dr. Howard Mettel, Dr. H. O. Mertz, Dr. Robert M. Moore, Dr. C. G. Culbertson, Dr. J. O. Ritchey, Dr. R. C. Badertscher, Dr. Paul Harmon.

BOOKS

Books Received

THE 1940 YEAR BOOK of PATHOLOGY and IMMUNOLOGY. PATHOLOGY edited by Howard T. Karsner, M.D., Professor of Pathology, Director of the Institute of Pathology, Western Reserve University, Cleveland. **IMMUNOLOGY** edited by Sanford B. Hooker, A.M., M.D., Professor of Immunology, Boston University School of Medicine; Member, Evans Memorial for Clinical Research and Preventive Medicine; Immunologist, Massachusetts Memorial Hospitals. 688 pages with 115 illustrations. Fabrikoid. Price $3.00. The Year Book Publishers, Chicago, 1940.

* * * *

THE 1940 YEAR BOOK OF INDUSTRIAL and ORTHOPEDIC SURGERY. By Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. 484 pages with 299 illustrations including two in colored plates. Fabrikoid. Price $3.00. The Year Book Publishers, Chicago, 1940.

* * * *

FOREIGN BODIES LEFT IN THE ABDOMEN. The Surgical Problems—Cases, Treatment, Prevention. The Legal Problems—Cases, Decisions, Responsibilities. By Harry Sturgeon Crossen, M.D., School of Medicine, Washington University; and David Frederic Crossen, LL.B., School of Law, Washington University, St. Louis, Missouri. 762 pages with 212 illustrations including 4 color plates. Cloth. Price $10.00. The C. V. Mosby Company, St. Louis, Missouri.

* * * *

THE DOCTOR AND THE DIFFICULT CHILD. By William Moodie, M.D., F.R.C.P., D.P.M., Medical Director, London Child Guidance Clinic and Training Centre. 214 pages. Cloth. Price $1.50. The Commonwealth Fund, New York, 1940.

Society Reports

BARTHOLOMEW COUNTY MEDICAL SOCIETY:
President, W. B. Sigmund, Columbus
Vice-president, Richard K. Schmitt, Columbus
Secretary-treasurer, R. P. Reynolds, Elizabethtown

BOONE COUNTY MEDICAL SOCIETY:
President, Clancy Bassett, Thorntown
Vice-president, O. E. Brendel, Zionsville
Secretary-treasurer, L. M. Headley, Lebanon

CARROLL COUNTY MEDICAL SOCIETY:
President, Roger W. Brookie, Flora
Vice-president, Max Adams, Flora
Secretary-treasurer, C. L. Wise, Camden

CLAY COUNTY MEDICAL SOCIETY:
President, J. Frank Maurer, Brazil
Vice-president, R. K. Webster, Brazil
Secretary-treasurer, John M. Palm, Brazil

CLINTON COUNTY MEDICAL SOCIETY:
President, T. A. Dykhuizen, Frankfort
Vice-president, A. A. Williamson, Michigantown
Secretary-treasurer, R. A. Hedgcock, Frankfort

DAVIESS-MARTIN MEDICAL SOCIETY:
President, A. G. Blazey, Washington
Vice-president, D. H. Swan, Plainville
Secretary-treasurer, C. P. Fox, Washington

DEARBORN-OHIO COUNTY MEDICAL SOCIETY:
President, O. H. Stewart, Aurora
Vice-president, E. O. Hoffman, Dillsboro
Secretary-treasurer, J. C. Elliott, Guilford

DELAWARE-BLACKFORD COUNTY MEDICAL SOCIETY:
President, Donald A. Covalt, Muncie
Vice-president, L. R. Mason, Muncie
Secretary-treasurer, R. D. Turner, Muncie

ELKHART COUNTY MEDICAL SOCIETY:
President, J. M. Fleming, Elkhart
Vice-president, H. K. Lemon, Goshen
Secretary-treasurer, S. T. Miller, Elkhart

FAYETTE-FRANKLIN COUNTY MEDICAL SOCIETY
President, H. N. Smith, Brookville
Vice-president, H. W. Smelser, Connersville
Secretary-treasurer, R. H. Elliott, Connersville

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY:
President, W. A. Johnson, Perrysville
Vice-president, John S. Hash, Williamsport
Secretary-treasurer, Margaret T. Owen, Attica

GRANT COUNTY MEDICAL SOCIETY:
President, Dr. Z. T. Hawkins, Fairmount
Vice-president, Charles F. Abell, Marion
Secretary-treasurer, R. J. Baskett, Jonesboro

GREENE COUNTY MEDICAL SOCIETY:
President, Harry G. Rotman, Jasonville
Vice-president, Edwin Bailey, Linton
Secretary-treasurer, George Moses, Worthington

HENDRICKS COUNTY MEDICAL SOCIETY:
President, Joseph Smith, Plainfield
Vice-president, M. E. Clark, Coatesville
Secretary-treasurer, W. T. Lawson, Danville

HUNTINGTON COUNTY MEDICAL SOCIETY:
President, J. B. Eviston, Huntington
Vice-president, P. M. Gray, Huntington
Secretary-treasurer, G. M. Nie, Huntington

INDIANAPOLIS (MARION COUNTY) MEDICAL SOCIETY:
President, James O. Ritchey, Indianapolis
President-elect, Goethe Link, Indianapolis
Vice-president, J. B. Stalker, Indianapolis
Secretary-treasurer, W. M. Dugan, Indianapolis

JASPER-NEWTON COUNTY MEDICAL SOCIETY:
President, W. C. Mathews, Kentland
Vice-president, W. G. Pippenger, Brook
Secretary-treasurer, F. G. Sink, Remington
(Since this report was received, Dr. Mathews advises that Dr. Sink has been called to service and Dr. Mathews is acting secretary-treasurer.)

JAY COUNTY MEDICAL SOCIETY:
President, Donald E. Spahr, Portland
Vice-president, O. L. Meyer, Portland
Secretary-treasurer, B. M. Taylor, Portland

JENNINGS COUNTY MEDICAL SOCIETY:
President, Joseph S. Skobba, Butlerville
Vice-president, W. H. Stemm, North Vernon
Secretary-treasurer, D. L. McAuliffe, North Vernon

KOSCIUSKO COUNTY MEDICAL SOCIETY:
President, John L. Hillery, Silver Lake
Vice-president, E. W. Thomas, Leesburg
Secretary-treasurer, H. F. Steele, Claypool

LA PORTE COUNTY MEDICAL SOCIETY:
President, D. D. Oak, LaCrosse
Vice-President, N. C. Reglien, Michigan City
Secretary-treasurer, R. A. Fargher, LaPorte

LAWRENCE COUNTY MEDICAL SOCIETY:
President, J. D. Byrns, Mitchell
Vice-President, Frank Martin, Bedford
Secretary-treasurer, Charles B. Emery, Bedford

MADISON COUNTY MEDICAL SOCIETY:
President, C. V. Rozelle, Anderson
Vice-president, J. I. Rinne, Lapel
Secretary-treasurer, M. A. Austin, Anderson

MORGAN COUNTY MEDICAL SOCIETY:
President, H. R. Willan, Martinsville
Vice-president, A. D. Sweet, Martinsville
Secretary-treasurer, H. H. Dutton, Martinsville

OWEN COUNTY MEDICAL SOCIETY:
President, R. H. Richards, Patricksburg
Secretary-treasurer, Julia S. Thom, Gosport

RANDOLPH COUNTY MEDICAL SOCIETY:
President, Ivan E. Brenner, Winchester
Vice-president, L. E. Jordan, Lynn
Secretary-treasurer, V. K. Stoelting, Winchester

ST. JOSEPH COUNTY MEDICAL SOCIETY:
President, Robert B. Acker, South Bend
Vice-president, Merle E. Whitlock, Mishawaka
Secretary-treasurer, M. J. Thornton, South Bend
Assistant secy-treas., M. D. Wygant, Mishawaka

STEUBEN COUNTY MEDICAL SOCIETY:
President, William F. Waller, Angola
Vice-president, B. A. Blosser, Fremont
Secretary-treasurer, S. S. Frazier, Angola

SWITZERLAND COUNTY MEDICAL SOCIETY:
President, L. H. Bear, Vevay
Vice-president, George W. Copeland, Vevay
Secretary-treasurer, R. M. Copeland, Vevay

VANDERBURGH COUNTY MEDICAL SOCIETY:
President, A. F. Clements, Evansville
Vice-president, Dallas Fickas, Evansville
Secretary-treasurer, S. L. Bryan, Evansville

VIGO COUNTY MEDICAL SOCIETY:
President, W. C. Kunkler, Terre Haute
Vice-president, E. T. Zazing, Terre Haute
Secretary-treasurer, A. M. Mitchell, Terre Haute

WAYNE-UNION COUNTY MEDICAL SOCIETY:
President, L. T. Cox, Fountain City
Vice-president, W. B. McWilliams, Liberty
Secretary-treasurer, F. H. Coble, Richmond

WABASH COUNTY MEDICAL SOCIETY:
President, C. Eugene Cook, North Manchester
Vice-president, J. G. Kidd, Roann
Secretary-treasurer, F. M. Whisler, Wabash

WARRICK COUNTY MEDICAL SOCIETY:
President, P. B. Hoover, Booneville
Vice-president, L. S. Taylor, Elberfeld
Secretary-treasurer, C. L. Luckett, Booneville

WASHINGTON COUNTY MEDICAL SOCIETY:
President, I. E. Huckleberry, Salem
Secretary-treasurer, T. Kermit Tower, Campbellsburg

WHITLEY COUNTY MEDICAL SOCIETY:
President, W. E. Wilkin, South Whitley
Vice-president, E. A. Hershey, Churubusco
Secretary-treasurer, Park Huffman, South Whitley

LOCAL MEETINGS

Boone County Medical Society members held a meeting at noon on December third at the Witham Hospital, Lebanon. Dr. C. G. Kern, of Lebanon, gave a report of the state conference held at French Lick in October.

* * *

Clay County Medical Society members held a meeting at Brazil on December third. Twelve members attended the meeting.

* * *

Clinton County Medical Society members met at the Clinton County Hospital on December third. Fifteen members were in attendance. "Blood and Plasma Banking" was the subject of the evening.

* * *

Dearborn-Ohio County Medical Society members held their annual business meeting at the Dillsboro Sanitarium, at Dillsboro, on November twenty-eighth. Rev. H. G. Weisbecker gave a travel talk on Siam and Indo-China. Thirty members were in attendance.

On December fifth the Society held a dinner meeting at Dillsboro.

Decatur County Medical Society members met at Greensburg on November twentieth. Dr. D. D. Dickson, of Letts, gave a report of the International Medical Assembly held at Cleveland in September. Six members attended this meeting.

* * *

Delaware-Blackford County Medical Society members held their annual business meeting at Hotel Roberts, Muncie, on November nineteenth. Officers were elected. Dr. O. M. Deardorff, of Muncie, spoke on "Constipation", and Dr. C. A. Ball, of Muncie, spoke on "Colitis". Thirty-five were in attendance.

* * *

Dubois County Medical Society members met at the Court House, at Jasper, on November twentieth. Dr. Misch Casper, of Louisville, Kentucky, spoke on "Newer Proven Therapeutic Agents." Thirteen members attended this meeting.

* * *

Elkhart County Medical Society members held a meeting for election of officers at Elkhart in the Hotel Elkhart, December twelfth. Dr. Charles E. Boys talked about and showed movies of his hunting trip to Brazil, during which Dr. Boys shot five jaguars. This was the annual business meeting and stag party with sixty-five in attendance.

* * *

Fort Wayne (Allen County) Medical Society members held a dinner meeting at the Chamber of Commerce Building, Fort Wayne, on Tuesday, November nineteenth. Dr. Grover C. Penberthy, of Detroit, Michigan, spoke on "The Surgical Management of Appendicitis."

On December third the Society held a meeting at which Dr. Irvine Page, of Indianapolis, was the guest speaker, his subject being "Hypertension."

* * *

Fountain-Warren County Medical Society members met at the Mudlavia Hotel, Kramer, on December fifth. Dr. R. H. Bayley, of Lafayette, spoke on "Pneumonia." Officers were elected for the ensuing year. Seventeen members attended this meeting.

* * *

Gibson County Medical Society members held a meeting at the Methodist Hospital, at Princeton, on December ninth. Dr. Albert M. Mitchell, of Terre Haute, spoke on "The Practice of Medicine in the Future." Twenty members were in attendance.

* * *

Grant County Medical Society members held their regular December meeting at the nurses' home at Marion on November twenty-eighth.

* * *

Huntington County Medical Society members met at the La Fontaine Hotel, at Huntington, on November twelfth. Dr. J. J. Hayes, of Fort Wayne, gave an illustrated lecture on "The Pathology of Appendicitis."

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club on November nineteenth. Drs. Goethe Link, Robert Moore, E. F. Kiser, W. D. Little, E. F. Boggs, and Wayne Carson took part in a panel discussion on "Thyroid Disease."

Dr. Norman E. Freeman, of the University of Pennsylvania Medical School, addressed the Indianapolis Medical Society at a meeting held on November twenty-sixth. He discussed "Peripheral Circulatory Failure: Its Prevention and Treatment."

On December third the Indianapolis Medical Society held their annual business meeting with election of officers.

At a meeting held on December tenth, Drs. Thomas B. Noble, Cleon A. Nafe, J. K. Berman, and W. D. Little were the discussants in a panel discussion on "The Surgical Treatment of Peptic Ulcer."

On December seventeenth the Indianapolis Medical Society was addressed by Dr. Raymond E. Mitchell, of Indianapolis, who spoke on "Unexplained Fevers."

* * *

Jasper-Newton County Medical Society held a meeting at Hoosier Inn, Rensselaer, December fifth, when Dr. F. S. Crockett of Lafayette was the principal speaker. Dr. Crockett's subject was "Diagnostic Problems in Urology." Thirteen members were present. Dr. L. H. Recher of Morocco was unanimously elected an honorary member of the society.

* * *

Jay County Medical Society members held a meeting at the Jay County Hospital on December sixth. Dr. M. H. Draper, of Fort Wayne, was the guest speaker, his subject being "Surgical Treatment of Tuberculosis."

* * *

Kosciusko County Medical Society members met at Hotel Hays, Warsaw, on December tenth. Dr. O. H. Richer, of Warsaw, gave a report on the State Conference held at French Lick in October. Ten members attended this meeting.

* * *

Lagrange County Medical Society members called a special meeting on November eighteenth to adopt resolutions expressing their regrets at the death of Dr. Frank Wade.

* * *

Lake County Medical Society members met at the Mercy Hospital, Gary, on November fourteenth. The program consisted of a symposium on surgery: "Hospital Wound Infections," by Dr. Harvey Allen of Chicago, and Dr. C. O. Almquist, of Gary, as discussant; "Early Diagnosis of Prostatism," by Dr. Harry Culver of Chicago, and Dr. James S. Reynolds, of Gary, as discussant; "Diagnosis of Appendicitis," by Dr. Charles M. Davison of Chicago, and Dr. E. S. Jones, of Hammond, as discussant. 120 members attended.

On December fifth the Lake County Medical Society members and the Women's Auxiliary to the organization held a joint dinner-dance and bridge party at the Woodmar Country Club. About 125 attended.

* * *

Laporte County Medical Society members met at the Pottowattomie Country Club, Michigan City, on November twenty-eighth. Dr. E. M. Shanklin, of Hammond, spoke on "Military Medicine." Twenty-five members and guests attended the meeting.

* * *

Muncie Academy of Medicine held a meeting on December tenth. Dr. Robert Keating of the Ohio State University spoke on "Some of the Modern Aspects of the Treatment of Syphilis."

* * *

Noble County Medical Society members met at Koons' Cafe, at Ligonier, on December seventeenth. Dr. A. N. Ferguson, of Fort Wayne, gave a paper entitled "Arteriosclerotic Heart Disease." Motion picture illustrations followed the talk.

* * *

Northeastern Indiana Academy of Medicine members held a dinner meeting at the Kendall Hotel on November twenty-eighth. Dr. Lyle Weed, of Indianapolis, discussed the timely topic of "Tularemia." Thirty members attended.

On December nineteenth the Northeastern Indiana Academy of Medicine held a meeting at The Publix, at Kendallville. Dr. David A. Boyd, of Indianapolis, spoke on "Psychiatry in General Practice."

* * *

Perry County Medical Society members met at the Chamber of Commerce Building on November twenty-sixth. Miss Mary Ellen Warstler, R.N., Bureau of Maternal and Child Health, Indianapolis, demonstrated the use of an incubator for prematurely born infants.

* * *

Putnam County Medical Society members entertained their wives at a three-course dinner given at the College Inn, at Greencastle, on December fifth. Twenty-six were in attendance.

* * *

Randolph County Medical Society members held their annual Christmas banquet at the Elks Club, at Union City, on December ninth.

* * *

St. Joseph County Medical Society members held an all-day meeting at the Oliver Hotel, South Bend, on November fifteenth. The forenoon session opened with a presentation of cases by local doctors, and the afternoon session opened with a heart clinic by Dr. Robert M. Moore of Indianapolis. Dr. O. H. Wangensteen, of Minneapolis, presented a paper on "The Ulcer Problem Viewed from the Standpoint of Etiology and Therapy"; Dr. Herbert E. Schmitz, of Chicago, gave a paper on "Appendicitis in the Female"; and Dr. James L. Wilson, of Detroit, Michigan, spoke on "Problem of the New Born Period."

* * *

Thirteenth District Medical Society members held their annual meeting at Hotel Goshen on November thirteenth. Officers were elected for the ensuing year. A skin clinic was held in the morning under the supervision of Dr. John Dalton of Indianapolis. The afternoon session was devoted to a paper and discussion on "The Treatment of Facial Injuries and Deformities," presented by Dr. Claire Leroy Straith, of Detroit, Michigan; and "Present Pediatric Viewpoints," presented by Drs. Dale Pyle, of South Bend, and Charles C. Dubois, of Warsaw. The principal address of the evening was given by Dr. C. R. Bird, Colonel of the Medical Reserve Corps, of Indianapolis, who spoke on "The Why, When, and How of Military Medical Preparedness."

* * *

Tippecanoe County Medical Society members were entertained at the William Ross Sanitarium, Lafayette, on November twelfth. Fifty-three members were in attendance. Dr. Paul H. Holinger, of Chicago, spoke on "Treatment of Lung Infections. The Value of the Bronchoscope." A clinic was conducted during the afternoon.

* * *

Tri-County Medical Association members held their monthly meeting at Mrs. Stofer's Tea Room, in Columbus, on November twenty-seventh. The guest speaker of the evening was Dr. Richard Tyler, of Cincinnati, Ohio, who spoke on "The Diagnosis and Treatment of Congestive Heart Failure." Thirty members attended, and their wives were guests at this meeting.

* * *

Vanderburgh County Medical Society members held a meeting at the Vendome Hotel, at Evansville, on December tenth. Officers were elected. A round table discussion was held. Thirty-five members attended.

* * *

Wabash County Medical Society members held a business meeting on December fourth at the Sheller Hotel, at North Manchester. Officers were elected for the ensuing year.

* * *

Warrick County Medical Society members held a meeting at Boonville on October eighth. Dr. R. R. Acre of Evansville spoke on "Genito-urinary Diseases of Children." Eleven members attended.

On November twelfth the Warrick County Medical Society met at the Country Club for a noon luncheon. Dr. William P. Wood, of Evansville, spoke on "Fractures of the Hip." Ten members attended this meeting.

The December tenth meeting of the Society was held at the Stone Country Club with an attendance of eight members. Dr. George Bowman, of Indianapolis, spoke on "Some Aspects of Venereal Disease for Clinics."

* * *

Wayne-Union County Medical Society members were entertained at the home of Dr. H. P. Ross, at Richmond, on November fourteenth. Fifty-two members were present. Dr. Rollin H. Moser, of Indianapolis, spoke on "Disorders of the Gastrointestinal Tract with Special attention to the Biliary System." Motion picture "Bobby Goes to School," produced by The American Academy of Pediatrics, was shown and approved by the Society for showing to lay groups.

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

December 1, 1940.

Meeting called to order at 9:30 a.m.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; K. R. Ruddell, M.D.; A. M. Mitchell, M.D.; M. A. Austin, M.D.; F. T. Romberger, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: R. L. Hane, M.D., chairman; Committee on Secretaries' Conference; C. J. Clark, M.D., chairman, and H. C. Wadsworth, M.D., Pneumonia Committee; Norman M. Beatty, M.D., and J. William Wright, M.D., co-chairmen of Legislative Committee.

The statements of receipts and expenditures for September, October, and November were approved.

Membership Report

Number of members Nov. 30, 1940	3,182
(90 hon. mems.)	
Number of members Nov. 30, 1939	3,121
Gain over last year	61
Number of members December 31, 1939	3,145
(95 hon. mems.)	

Treasurer's Office

Upon the motion of Dr. McCaskey, seconded by Dr. Mitchell, the annual audit of the books as done in the past was approved.

1940 Annual Session at French Lick

Amendments to the Constitution and By-Laws on the following subjects were passed by the House of Delegates:

a. Members of House of Delegates made eligible to election to office.

b. Elimination of word "material."

c. Each county of a joint society to have a delegate.

Dues of physicians in service. The following resolution was passed by the House of Delegates waiving the dues of physicians in service:

"I move that the Indiana State Medical Association shall remit the dues of those doctors called to the colors of our Government for the duration of that service."

The Executive Committee felt that the Council should decide as to whether or not money should be taken from the reserve fund to pay for these members or whether these men should be listed as members without any funds being added to the 1941 account.

The committee was of the opinion that no dues should be refunded for 1940.

Physicians on Industrial Board. The House of Delegates went on record approving the report of the Industrial Health Committee which provided that two physicians should be placed on the Industrial Board. The Executive Committee approved a letter to be sent to the members of the Council asking them to name physicians in their district who might be interested in such an appointment. The letter is to state the duties of such an appointee.

Suggestion that liaison committee be appointed. The Industrial Health Committee also recommended in its report, which was adopted by the House of Delegates at the French Lick session, that a liaison committee be appointed by the "National Manufacturer's Association to work with that body and the state medical association on this program of industrial health." The Executive Committee thought that the suggestion might be made that the labor group also appoint such a committee.

Medical and hospital service plans. Statement clarifying the attitude of the state medical association made by Dr. Nafe. Dr. Nafe explained that at the last session of the legislature the state association took the attitude of going along with the hospital association in sponsoring any legislation having to do with hospital service plans. It is understood that during the coming session of the legislature the hospital association states it will be glad to go along with the state medical association in any legislation that it presents for such plans. Dr. Nafe also explained that there was to be a meeting of the Governor's committee to consider legislation for a hospital service plan.

University Hospital commitment law. The House of Delegates at French Lick took the following action in regard to proposed legislation amending the present University hospital commitment law:

"We wish to offer the following suggestions in the change of House Bill 74:

"That every indigent case sent to any hospital should be certified by the judge having jurisdiction upon recommendation of the family physician and one other physician appointed by the judge, making two physicians; the hospital to be chosen by the judge. The payment for such hospitalization to be made by the county from which the patient is committed."

Dr. Beatty explained that conferences had been held between Dr. W. D. Gatch, dean of the University School of Medicine, and Charles Dawson, lieutenant governor-elect, former secretary of the Township Trustees Association, in regard to the proposed legislation. Dr. Beatty said he believes that an amendment to the present law can be written which will be satisfactory to the trustees, the University group, and the medical profession. Such an amendment would provide that the trustees make the investigations and that the patients may be committed either to local hospitals or to the University hospitals.

Aid to needy physicians. The House of Delegates recommended that a committee be appointed to look into the question of aid to needy physicians. Dr. Mitchell, president 1941, signified his intention of appointing such a committee.

1941 Annual Session at Indianapolis

September 23, 24 and 25, 1941, set as convention dates after survey of possible dates made with the Indianapolis Convention Bureau and consideration taken of possible conflicts with other state societies and medical organizations.

Appointment of local chairman. Dr. Mitchell is to take the suggestion made by Dr. J. O. Ritchey, president 1941, and the Council of the Indianapolis Medical Society in making the appointment of the local chairman.

Report to midwinter meeting of Council from Indianapolis Medical Society. Request for this will be made of the proper officials of the local society next week.

Legislative, Legal and Social Security Matters

National

Following is an excerpt from a letter received from William H. Larrabee, M.D., congressman from the Eleventh District:

> "I am glad to know that the profession appreciates my efforts to obtain a definite statement from President Roosevelt. I am quite naturally gratified at the position the President has taken especially in view of my own views opposing socialized medicine, and I hope that there will be no further effort on the part of men prominent in our profession to use such unethical tactics as those that were attempted in the last campaign.
>
> "Had I realized at an earlier date that the Chicago physicians committee was engaging in such a widespread program of dishonest propaganda, I would have contacted the President earlier concerning the matter, and at the same time, I would have made efforts at an earlier date to properly advise members of the profession in my district and state."

Dr. Ruddell made a short report to the committee upon information he gathered while east concerning possible national legislation affecting the medical profession.

Local

Chiropractic legislation. It is known that there will be a separate board bill introduced by the chiropractors and intense efforts will be made by the chiropractors to pass this bill.

Bernarr Macfadden's article in Liberty. Attention of the committee was called to this article along with the editorial that appeared in the November 30, 1940, *Journal of the American Medical Association* answering it.

Indiana Merit System Association. An organization to sponsor a statewide merit system is in the process of formation and the Indiana State Medical Association has been asked to become a member. Among the groups in this organization are the League of Women Voters, Parent-Teacher Association, and state crime prevention organization. The committee felt that it would be well to keep in touch with this organization but it did not feel that the name of the Indiana State Medical Association should be used as one of its component members.

State Board of Health

(1) Dr. John Ferree, secretary, and Dr. L. W. Spolyar, chief of the Bureau of Industrial Health of the State Board of Health, told the committee of the demands that are being made by industry to have mass serological tests made as a defense measure. The Committee on Venereal Disease passed the following resolution at its meeing on November 30 and asked the Executive Committee to approve this resolution:

> "The Committee on Venereal Disease advocates Indiana State Medical Association wishes to commend industry in its desire to have blood tests for syphilis done on all its employees, first as a pre-employment measure and second as a routine part of the physician's examination of all employees.
>
> "The Committee on Venereal Disease advocates that the state laboratory furnish laboratory services for the diagnosis of syphilis at public expense to all state and county boards of social welfare clients, social types of public assistance clients: to all inmates or patients of federal, state, county or municipal institutions and homes; and to all other residents of the state of Indiana who find it difficult or impossible to pay the costs of laboratory service of this kind in the usual and customary manner.
>
> "However, this committee wishes to reaffirm its statement on serologic tests for syphilis:
>
> "No industry is to be considered indigent.
>
> "Individuals falling into the classifications defined as eligible for free serologic service shall receive such service at the request of the physician but this is in no wise to be interpreted to apply to examinations requisite for employment by industrial employed physicians."

The Executive Committee approved this resolution.

Approval of pneumonia film. Dr. C. J. Clark, chairman of the Pneumonia Committee, reported that the committee had seen a new pneumonia film, shown by the State Board of Health, and had approved the showing of this film throughout the state under the supervision of the State Board of Health.

Group Hospitalization and Group Medical Practice

Action by House of Delegates. The House of Delegates of the Indiana State Medical Association "specifically reindorsed the principle of cash indemnity medical insurance" and recommended that medical service plans be encouraged on an experimental basis in those localities where the sentiment of the profession and the public warrants it.

The House also recommended that the state association act with the Indiana Hospital Association and the Governor's special committee in formulating any hospitalization or medical care program that might be introduced in the next session of the legislature.

Too many health groups licensed in New York. Dr. A. M. Mitchell called the attention of the committee to an article clipped from the New York *Times* which stated that "The State Insurance and Social Welfare Departments (of New York State) have licensed so many health and medical expense insurance companies to operate in competition since 1938 that all voluntary health insurance plans now are in financial jeopardy."

Article in Nation's Business The attention of the committee was called to an article in *Nation's Business* entitled, "Cutting the Doctor's Bill to Fit."

Health insurance advertised by commercial companies. Advertising circulars from the Continental Casualty Company and the Union Benefit Society of Delaware, writing hospital insurance, brought to the attention of the committee. It is felt by some members of the committee that to a large extent these commercial companies perhaps are supplying the demand for group hospitalization insurance.

Medical Economics

National Youth Administration health examination program. Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association, reported to the headquarters office of the state medical association that in some states the National Youth Administration had asked the medical profession of that state to render medical service to their group on an hourly basis, it was reported to the Executive Committee. This basis, according to Dr. Leland, was $21.00 a day for a seven-hour day, or a rate of $3.00 an hour. Dr. Leland wanted to know if the local division of the National Youth Administration had approached the medical profession asking the members to give medical service upon this basis. Nothing had been heard in regard to this in Indiana.

(Continued on page xxii)

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"I have carried insurance with your Company over thirty years, but in this one instance I have been more than repaid for every cent I have spent with you."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(52,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $33.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $66.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $99.00 per year

38 years under the same management

$1,850,000 INVESTED ASSETS
$9,500,000 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

Medical Relief

Joint meeting with township trustees and Hospital Association. Upon adjournment of the Executive Committee many of the members attended the joint meeting that was held by representatives of the township trustees association, the hospital association, and the state medical Relief Committee. This group met to consider the survey that had been made by the State Welfare Department in regard to costs for medical services in the various townships. Final report is to be drawn up and submitted to the three groups for their approval before publication.

Monthly report on WPA cases for October brought to the attention of the committee. The committee suggested that this report be sent to Dr. J. S. Leffel, chairman of the Medical Relief Committee, calling his especial attention to the charges made in one individual case where the physician rendered a bill for $367.00.

Sickness Insurance and Socialized Medicine

Bureau of Cooperative Medicine. Evidence of activity on the part of those sponsoring group medical practice is shown by recent bulletins that are being published by the Bureau of Cooperative Medicine headed by Dr. Kingsley Roberts, medical director of the Bureau of Cooperative Medicine.

Medical Care Journal of Michael M. Davis. Attention of the Committee also called to a new journal entitled "Medical Care" that is to be published by Michael M. Davis.

John T. Flynn. John T. Flynn, Scripps-Howard columnist, discussed on November 6, the day after election, statements made by President Roosevelt in regard to socialized medicine. In conclusion Mr. Flynn writes:

> "As we know nothing was done about socialized health insurance. And now, four years later, the President tells the doctors definitely that nothing will be done. That incident, with its speculations—interesting as they are—we may well consider closed."

State Board of Medical Registration and Examination and Cult Study Committee

Judge Wilson's statement in regard to the Crum case. The Executive Committee highly commended the statement made by Judge Herbert E. Wilson, Superior Court, Room 5, in rendering his decision revoking the three licenses to practice drugless therapy issued to Hiel Eugene Crum. In speaking of the "coetherator," the machine used by Mr. Crum, Judge Wilson said:

> "Instead of calling it an etherator he might easily have called it a magic healing carpet from the Orient. Granting that some hysteria patients have been cured by such a hocus pocus known as the etherator, this does not warrant the courts permitting such fraud to continue."

Military Preparedness

Report made that less than 300 of Indiana's 4100 physicians have not answered the A.M.A. questionnaire. It is the purpose of the M-Day Committee to have an answer from every man in at the A.M.A. headquarters office or a reason why there is no questionnaire from that physician. A number of physicians are either retired or are not in practice although they are listed in the A.M.A. directory.

House Resolution 10606. Attention of the committee called by Dr. John Ferree to H. R. 10606, introduced by Congressman Schwert, on health education in regard to national preparedness. (Several days following the Executive Committee meeting Paul McNutt was appointed director of all national defense health and recreational activities and so it is taken for granted that nothing will come of the Schwert bill as any health activities having to do with defense will be carried out under the direction of Paul McNutt.)

Future Medical Meetings

(1) January 12, 1941—Midwinter meeting of the Council, Columbia Club, Indianapolis.
(2) January 19, 1941—Annual Secretaries' Conference, Indianapolis Athletic Club.
(3) National Conference on Medical Service (formerly Northwest Regional Conference) to be held some Sunday in middle of February at Palmer House, Chicago.

WOMAN'S AUXILIARY

President—Mrs. C. L. Bock, Muncie
President-elect—Mrs. E. O. Nay, Terre Haute
Corresponding Secretary—Mrs. T. R. Owens, Muncie
Treasurer—Mrs. M. W. Hillman, South Bend

The *Allen County Auxiliary* started their year with a picnic supper at the Irene Byron Sanatorium, on September 17th. Mrs. R. W. Terrill spoke on "What M-Day Means to Me as a Civilian," and Dr. Juan Rodriguez on "What M-Day Means to Me as a Physician." On November 19th, Dr. D. F. Cameron spoke on "Taxpayers' Money and Medical Care," following a luncheon meeting at the Y. W. C. A. in Fort Wayne. At both meetings, important national medical legislation was discussed.

To date, the *Elkhart County Auxiliary* has held two organized meetings. The first meeting was held on October third at the Elkhart Y. W. C. A., when twenty-nine members were present. Miss Riby Barton, superintendent of the Elkhart General Hospital, suggested that the group adopt as a project, the supplying of certain needed hospital equipment. A second meeting was held on November 7th, at which time Mrs. Robert Bender, one of the Auxiliary members, gave a talk on "Spice from Life in India." Again, twenty-nine were present.

On November 8th, the *Howard County Medical Society Auxiliary* gave a Public Relations tea at the Elks' Club in Kokomo, following a program on cancer control. Mrs. Jesse S. Spangler, Public

(Continued on page xxiv)

SILVER PICRATE

Wyeth

is indicated in the treatment of

★ Acute Anterior Urethritis (due to Neisseria gonorrheae)

★ Trichomonas Vaginalis Vaginitis

★ Vaginal Moniliasis

★ Bartholinitis and Skeneitis (due to Trichomonas Vaginalis)

Silver Picrate is a definite crystalline compound of silver and picric acid. Available in the form of crystals and soluble trituration for the preparation of solutions; suppositories; water-soluble jelly; and powder for insufflation.

Complete information mailed on request

★ JOHN WYETH & BROTHER, INCORPORATED ★
PHILADELPHIA, PA.

Behind

MERCUROCHROME
(dibrom-oxymercuri-fluorescein-sodium)

H&V&D *is a background of*

Precise manufacturing methods insuring uniformity

Controlled laboratory investigation

Chemical and biological control of each lot produced

Extensive clinical application

Thirteen years' acceptance by the Council of Pharmacy and Chemistry of the American Medical Association

ACCEPTED AMERICAN MEDICAL ASSN. Council on Pharmacy and Chemistry

A booklet summarizing the important reports on Mercurochrome and describing its various uses will be sent to physicians on request.

Hynson, Westcott & Dunning, Inc.
BALTIMORE, MARYLAND

Cook County Graduate School of Medicine

(In Affiliation with Cook County Hospital)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, starting every two weeks. General Courses One, Two, Three and Six Months; Clinical Courses Special Courses. Rectal Surgery every week.

MEDICINE—Two Weeks Intensive Course starting June 2nd. One Month Course in Electrocardiography and Heart Disease every month, except August and December.

FRACTURES AND TRAUMATIC SURGERY—Two Weeks Intensive Course starting March 10th and May 5th. Informal Course every week.

GYNECOLOGY—Two Weeks Intensive Course starting February 24th and April 7th. Clinical, Diagnostic and Didactic Course every week.

OBSTETRICS—Two Weeks Intensive Course starting April 21st. Informal Course every week.

OTOLARYNGOLOGY — Two Weeks Intensive Course starting April 7th. Informal and Personal Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course starting April 21st. Informal Course every week.

ROENTGENOLOGY — Courses in X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES.

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore Street, Chicago, Illinois

(Continued from page xxii)

Relations chairman of the auxiliary, and county chairman of the Woman's Field Army for Cancer Control, was in charge. Dr. Chester A. Stayton, of Indianapolis, chairman of the executive board of the Woman's Field Army for Cancer Control, in Indiana, was the principal speaker, illustrating his talk with lantern slides. There was an exhibit table, from which literature on cancer control was distributed. In addition, there was a delightful musical program. Special guests were Mrs. C. L. Bock, of Muncie, president of the State Medical Auxiliary, Mrs. T. R. Hayes, of Muncie, State Public Relations chairman, Mrs. Wellman Bruner, district president of the Woman's Field Army for Cancer Control, Mrs. H. S. Wienaar and Mrs. E. O. Crockett, of Logansport, and Miss Edith Musselman and Mrs. J. C. Musselman, of Peru.

The Woman's Auxiliary to the *Marion County Medical Society* has had two meetings this fall, the first purely social, a luncheon at the Hillcrest Country Club of Indianapolis, with 105 members present. At the second meeting held at the Methodist Hospital Nurses' Home in Indianapolis, on November 4th, sixty-five members heard Miss Anna Hasselman, of the John Herron Art Museum, speak on "Castles in England." In October, the executive board entertained about twenty new members with a musical tea at the home of the membership chairman.

At the October meeting of the *Marshall County Medical Auxiliary*, the members voted to cooperate with the hospital in replenishing bedding, linens, etc., and to assist in every way possible.

WOMAN'S AUXILIARY TO THE ELKHART COUNTY MEDICAL SOCIETY

OFFICERS

President	Mrs. L. A. Elliott, Elkhart
President-elect	Mrs. D. D. Todd, Elkhart
First Vice-President	Mrs. J. A. Work, Elkhart
Second Vice-President	Mrs. A. C. Yoder, Goshen
Third Vice-President	Mrs. F. M. Freeman, Goshen
Fourth Vice-President	Mrs. W. A. Stauffer, Elkhart
Recording Secretary	Mrs. Irvin Mishkin, Elkhart
Corresponding Secretary	Mrs. R. L. Bender, Elkhart
Treasurer	Mrs. G. B. Patrick, Elkhart
Councilor	Mrs. I. J. Markel, Elkhart
Program Chairman	Mrs. Richard B. Stout, Elkhart
Parliamentarian	Mrs. M. O. Lundt, Elkhart
Historian	Mrs. F. N. Dewey, Elkhart

For a number of years the wives of physicians throughout Elkhart County felt a strong desire for an organization which would unite them into

Mrs. L. A. Elliott

a thoroughly sincere and well founded unit—a unit peculiar to their own particular position. Not wishing to appear too aggressive, various individuals discussed the situation but allowed it to lie dormant as far as leadership was concerned. It was not until May 8, 1940, that twenty-three doctors' wives met in answer to a luncheon invitation given by Mrs. L. A. Elliott, who had been in correspondence with state auxiliary leaders. At that time, Mrs. W. E. Tinney, of Indianapolis, presented the constitution, and outlined the various activities of an auxiliary.

It was decided to organize immediately, so as to launch into active work by fall. An organization meeting was held on May 20th. Mrs. L. A. Elliott was elected president, and began at once to do all possible to give the strong beginning to the auxiliary, which was felt necessary to its existence. A possibility of some sixty members was realized when a complete list was drawn up of the wives of both active and inactive doctors in the county. Though still very young, the Elkhart County Auxiliary should in time be able to take its place among the other progressive auxiliaries of Indiana. It is anxious to cooperate wholeheartedly to further the aims of the Association of which it is glad to be a part.

* * *

A meeting of the executive board of the Woman's Auxiliary to the Indiana State Medical Association was held at the Columbia Club in Indianapolis on November 19. Twenty members were present. The most important piece of business of the day was the announcement by the president, Mrs. C. L. Bock, of the plans and aims of the organization for the ensuing year.

(Continued on page xxvi)

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for general price list.

Chemists to the Medical Profession. IN—1-41

THE ZEMMER COMPANY

ZEMMER

Oakland Station, Pittsburgh, Pa.

For The Head-Cold Patient Who Won't Go to Bed

Every practitioner has them — patients who are coming down with colds, but who refuse to go to bed.

While Benzedrine Inhaler cannot be expected to cure these difficult patients, its use will give them marked comfort. Its vapor, diffusing throughout the upper respiratory tract, rapidly relieves congestion and thus promotes ventilation and drainage.

NO ATOMIZERS NO LIQUIDS
NO TAMPONS NO DROPPERS

BENZEDRINE INHALER

A VOLATILE VASOCONSTRICTOR

Each tube is packed with amphetamine, S. K. F., 325 mg.; oil of lavender, 97 mg.; menthol, 32 mg. Benzedrine is S. K. F.'s trademark, Reg. U. S. Pat. Off.

SMITH, KLINE & FRENCH LABORATORIES
PHILADELPHIA, PA.

EST. SKF 1841

(Continued from page xxiv)

SUGGESTED OBJECTIVES OF WORK FOR THE WOMAN'S AUXILIARY TO THE INDIANA STATE MEDICAL ASSOCIATION

Approved by the State Medical Advisory Board

Objectives

1. Self Education.
2. Intelligent co-operation with local Medical Societies.
3. Education of the Public.
4. Organization of the entire State as far as possible.
5. Promotion of Hygeia.
6. Follow outlines made by Medical Advisors.

Plan

1. **Self Education.**
   a. Work toward combined efforts of all Auxiliary units for a worthy state project.
   b. Membership drive for subscriptions to the new Auxiliary "Bulletin".
   c. Keep in touch with Medical current events.
2. **Intelligent co-operation with Medical Societies.**
   a. Submit all plans for work to the Medical Advisory Staff before taking definite action. Ask for suggestions.
   b. Try to have every Auxiliary member registered.
   c. Urge every Auxiliary member to vote. Ask members not to affiliate, for in so doing they become members of minority groups.
3. **Education of the Public.**
   a. Use **Doctor's Speaking Bureau** to place persons well informed on **Medical Economics** as speakers before all groups.
   b. Auxiliary members to use their influence in requesting other clubs to investigate thoroughly the qualifications of speakers before inviting them to address any group.
4. **Organization of New Auxiliaries.**
   a. Contact Secretaries and Presidents of local county medical societies, presenting plan of work.
   b. Get names of doctors' wives of local medical societies and have a called meeting when the plan for Auxiliary work may be presented.
   c. Help to organize and give advice as to election of officers, appointing chairmen of committees, and planning programs.
5. **Promotion of Hygeia**
   a. Contact professional, educational, social and commercial organizations in order that Hygeia may be placed to advantage in reading and reception rooms used by the **PUBLIC.**
6. **Follow outlines made by Medical Advisors**
   a. Keep in constant touch with the Medical Advisory Board, requesting their suggestions for assistance at all times, Medical Advisory Staff to feel free to put before us any plans wherein the co-operation of the Woman's Auxiliary throughout the State may assist in furthering their objectives.

Mrs. C. L. Bock, President.

THIRTEENTH DISTRICT MEDICAL SOCIETY

Annual Meeting—Goshen, Indiana

November 13, 1940

The annual meeting of the Thirteenth District Medical Society was held Wednesday, November 13th, 1940, at the Goshen Hotel in Goshen, Indiana.

The morning session was called to order at 10:15 by Dr. G. O. Larson of LaPorte. Dr. John Dalton of Indianapolis conducted a skin clinic with eleven patients who were furnished by the doctors of Goshen.

At 12:30 Dr. Larson appointed a nominating committee consisting of Drs. Yoder, Kelly, and Todd, and the morning session was adjourned.

Luncheon was served at the hotel to 39 members and guests.

At 1:30 Dr. M. Edward Davis, of the Chicago Lying-In Hospital, spoke on "The Diagnosis and Treatment of Hemorrhage in the Last Three Months of Pregnancy." This talk was illustrated with slides and movies. Discussion was led by Dr. R. H. Young and Dr. Samuel Bechtold.

At 3 o'clock a business meeting was held. The following officers were unanimously elected:

PRESIDENT—DR. F. G. PERRY, PLYMOUTH
VICE-PRESIDENT—DR. M. E. MILLER, GOSHEN
SEC'Y-TREAS.—LOUIS C. BIXLER, SOUTH BEND
COUNCILOR—DR. ALFRED ELLISON, SOUTH BEND

Dr. Alfred Ellison reported on the Indiana State Meeting held at French Lick in October and discussed some of the financial problems peculiar to all medical societies at the present time. He also discussed the advisability of collecting 50 cents from each member of the Thirteenth District Medical Society for the maintenance and conduction of the Thirteenth District Meeting rather than collecting money from the members who attend the annual meeting. This would be done by adding 50 cents to the annual fees collected by the county secretary. They would in turn forward this to the secretary-treasurer of the Thirteenth District. Dr. I. E. Perry, Councilor for the Eleventh District, stated that this plan of pro rata assessment of every member of the district through their county secretary was used in the Eleventh District and was very satisfactory. Dr. Larson appointed a committee to investigate the advisability of using some such plan in the Thirteenth District. This committee was to offer recommendations at the next annual meeting.

At 3:30 Dr. Claire Leroy Straith of Detroit, Michigan, discussed "Treatment of Facial Injuries and Deformities." This talk was illustrated with slides and colored movies, and demonstrations were made with six of Dr. Straith's patients who had consented to be present.

At 5 o'clock Dr. Louis H. Segar of Indianapolis spoke on "Present Pediatric Viewpoints," including such subjects as vitamin K, the baby's bath, hemorrhage in the newborn, infant feeding, and immunization. A general discussion followed.

At 6:30 dinner was served in the dining room of the Goshen Hotel. Sixty-six were present.

Dr. C. R. Bird of Indianapolis spoke on "The Why, When, and How of Military Medical Preparedness." This timely paper provoked much interest and a general discussion continued until 10 p. m., at which time the meeting was adjourned.

Registration of 95 was recorded.

FRED G. PERRY, M.D.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 FEBRUARY, 1941 NUMBER 2

This is the first of a series of requested articles on the "twelve great killers." Next month the article will deal with "Cerebral Hemorrhage."

THE HEART IN MIDDLE LIFE

GEORGE W. WILLISON, M.D.
EVANSVILLE

During the past twenty-five years a tremendous amount of publicity has been given to public and individual health problems. Through such agencies as medical societies, public health authorities, community health clinics, welfare units, and health foundations the attempt has been made to focus the attention of the public on its individual health problems. Quite naturally, the diseases which are the leading "killers" have received greatest emphasis. Of these, heart disease, which leads all others as a cause of death, has excited great interest and some apprehension among the laity. Almost daily the newspapers announce in ominous headings the sudden demise of some prominent citizen from heart disease. To the newspaper readers of middle age or older, these stories sound a note of warning and pointedly draw attention to the possibility of their having heart disease.

The individual passing through the decades after forty who comes for medical consultation with the complaint of "not being so good as he used to be" is familiar to every physician. The patient often minimizes his symptoms and may pass on to his medical adviser a ready-made diagnosis to explain his problem. It is an easy matter for the physician to dismiss the patient with a few reassuring words and a pat on the back. To read of the sudden death of this same individual a short time later is embarrassing and disconcerting. When an individual in the prime of life experiences a "letting-down," this change in function may have an organic background of real significance. Although his complaints are apparently vague or trivial, they may represent the insidious beginnings of serious heart disease and the physician should carefully survey the cardiovascular system in his examination.

As a cause of death, heart disease has assumed greater and greater importance until it far surpasses tuberculosis, pneumonia and malignant disease, the other most common causes of death. Of primary importance in this problem is the etiological aspect of heart disease. With the increasing emphasis given to preventive medicine in recent years, there has come a realization that the classification of all diseases from an etiological standpoint is essential. Since heart disease is the source of such great morbidity and high mortality, it deserves our most serious consideration. Only as we see the relative importance of etiological factors in disease do we get an accurate perspective. Upon this depends the success of our attempt to eradicate or ameliorate disease processes.

In middle life, that period of physiological change in which the wearing down process begins, the incidence of certain types of cardiovascular disease rises sharply. Most observers believe that in the past two or three decades certain of these types have increased in total incidence. As the average life span increases, obviously there will be a relatively greater number of individuals suffering from diseases that appear in the second half of life. And of even more importance, there is evidence to support the view that there is an increasing incidence in the absolute number of cases of cardiovascular disease in any section of our population which has reached or passed middle age.

The types of heart disease which manifest themselves in rapidly increasing numbers in middle life may be considered under the following general headings: angina pectoris and coronary thrombosis; hypertensive heart disease; syphilitic heart disease; and functional heart disease.

ANGINA PECTORIS

The characteristic paroxysm of pain or oppression in the chest as a direct result of stress or

strain, which is angina pectoris, is the most familiar symptom in medicine. In the sense that it can be accurately diagnosed, its course in a general way predicted, and the types of pathological changes at autopsy foretold, it may be regarded as a disease entity. It is of utmost importance to isolate from the group of patients who complain of chest pain those who have angina pectoris. The use of such terms as "true" and "false" angina or "anginoid" is misleading. Angina pectoris is always real. The use of "mild" or "severe" in describing angina can refer only to the frequency or severity of the attacks; they infer nothing regarding prognosis. The so-called "mild" case may die very suddenly at any time.

The exact mechanism of the attacks of pain in angina pectoris is unknown. However, there is coronary insufficiency giving rise to myocardial anoxemia.[1, 2] The several causes of insufficiency of the coronary circulation are: (1) disease of the coronary arteries themselves; (2) partial blocking of the coronary artery orifices by vegetations or changes in the aortic wall; (3) aortic insufficiency with very low diastolic pressure; (4) severe anemia; (5) excessive demand on the myocardium from strenuous exercise, paroxysmal rapid heart action, certain other arrhythmias, and thyrotoxicosis. These various factors indicate that at post mortem no single characteristic pathological process is found in the anginal patient.

There are various exciting factors which precipitate the attacks of angina pectoris. The more common are over-exertion, emotional excitement, overeating, exposure to cold, and the excessive use of tobacco. In an individual of the highly sensitive or nervous type, the attacks tend to be more severe.

Certain secondary etiological factors are related to the development of angina pectoris. The most important of these is heredity. That there is a strong familial factor in angina is an observation of every physician who has treated the members of one family over a period of years. Many members of a single family may die of angina pectoris or another form of vascular disease. There is also a constitutional type of individual who is more likely to develop angina. This is the well-developed, well-nourished, vigorous professional or business man who has never had a sick day previously. The male sex is more frequently affected by angina pectoris than the female in the ratio of three or four to one. Many of the women who have angina also have hypertension. Three-fourths of the cases of angina pectoris occur after the age of fifty.[3] It is not uncommon in the fourth decade and is occasionally seen in the late thirties. In the earlier age groups it is rare and then usually occurs in individuals suffering from aortic valvular disease. Experience indicates that angina pectoris is seen oftener than it was a generation ago. It seems to be occuring with more frequency in younger individuals than formerly.

Of the specific diseases etiologically related to angina pectoris, diabetes is the most important. If the diabetic patient lives sufficiently long, he will develop vascular changes which favor the development of angina pectoris. Syphilis is of importance etiologically when there is well-developed aortic insufficiency or when the syphilitic process partially occludes the coronary orifices. Other diseases associated with general arteriosclerosis and which are related etiologically to angina pectoris are thrombo-angiitis obliterans, gout, and chronic lead poisoning.

The diagnosis of angina pectoris depends on the proper interpretation of the patient's symptoms. The distress varies greatly as to type, severity and radiation of pain. In the vast majority of cases the pain is the result of effort. Careful questioning of the patient will usually reveal the precipitating factor. Palpitation may accompany the attack; dyspnea is infrequent.

The course of angina pectoris is extremely variable and sudden death may occur at any time. The average life expectancy after the development of anginal symptoms is four to five years. In general the more frequent and severe the attacks and the greater the organic change in the heart, the more serious is the prognosis. The presence of luetic aortitis makes the prognosis grave. Heredity is a significant factor in prognosis. Individuals with angina pectoris whose parents died at a more advanced age will live longer. The care with which the regimen of treatment is followed in some measure affects the course and prognosis of the disease. A well-regulated quiet life with proper adjustment of weight, and the use of drugs as they are indicated may add several years to the life expectancy.

CORONARY THROMBOSIS

Disease of the coronary arteries is common. It forms the background upon which coronary thrombosis develops. In a series of 1,000 consecutive autopsies 37.1 per cent showed macroscopic coronary disease.[4] It is extremely important in that it often cripples or kills in the prime of life or in earlier years, and not merely in old age when little can be done in the way of prevention or control. Its deleterious effect on the heart results from a reduction of the blood supply to the myocardium. Coronary disease is of various types. Most of the cases are of the arteriosclerotic type. A few are syphilitic, fewer still are due to rheumatic infection and a rare case to endarteritis obliterans.

The hereditary factor is of much importance etiologically in coronary disease. The male sex is affected several times more commonly than the

[1] Levine: Clinical Heart Disease, Philadelphia, 1936, W. B. Saunders Co., p. 102.

[2] White: Heart Disease, New York, 1931, The Macmillan Co., p. 605.

[3] White: Heart Disease, 1931, p. 610.

[4] Allan, G. A.: Diseases of the Coronary Arteries, *British Medical Journal*, 1928, II, p. 232.

female. Hypertension is frequently followed by coronary sclerosis. As in angina pectoris, coronary disease appears to be more common in the robust professional or business man. The incidence of coronary thrombosis parallels in general that of coronary sclerosis.

When a coronary vessel is partly or completely occluded the muscle supplied by that vessel suffers in a variable degree. The most common site of coronary occlusion is in the descending branch of the left coronary artery near its mouth; this vessel has been called "the artery of sudden death." The second most common site of occlusion is in the right coronary artery. Narrowing or blocking of smaller branches may be completely compensated for by the anastamotic circulation.

One of the outstanding symptoms of coronary thrombosis is pain in the chest although in some cases it may be absent. It may take the form of oppression or an awful sense of constriction or crushing pain. It is most commonly felt substernally but often radiates to the throat, midback, shoulders and arms or to the epigastrium. The pain may last for an hour or two to several days and often returns in milder forms in the succeeding days. Dyspnea is an equally important symptom and the sudden onset of choking, struggling respiration may mark the acute attack of coronary thrombosis. In the acute attack there often is seen the picture of severe shock. Nausea and vomiting are common symptoms and there is usually fever and leukocytosis. The so-called attack of acute indigestion is acute coronary thrombosis in almost all instances.

Few general rules to aid in prognosis in coronary thrombosis can be laid down; the course is so variable that each case must be considered individually. The immediate mortality amounts to between fifteen and twenty-five per cent.[5] The average length of life after recovery from an attack is about two years although some will live ten to fifteen years or more. The prognosis is worse when the following conditions are found: severe shock, prolonged substernal pain, continued high fever, gallop rhythm, pulsus alternans, heart block, cardiac asthma, congestive failure and embolic phenomena. The prognosis is better in posterior occlusions than in anterior lesions.

In addition to the specific treatment of the acute attack complete mental and physical rest is essential. Prolonged rest in bed for four to eight weeks should be enforced to assure sound healing of the infarct. It is usually necessary to prescribe definite limitations on the degree of physical activity once the patient is again ambulatory.

HYPERTENSIVE HEART DISEASE

Arterial hypertension is perhaps the most common cause of disabling heart disease. It has been estimated that about 70,000 people die each year in this country as a result of heart failure caused by hypertension.[6] In a series of 708 cases of hypertensive heart disease[7] 17 per cent were over seventy years of age, 33 per cent were in the seventh decade, 29 per cent in the sixth, 16 per cent in the fifth, 4 per cent in the fourth, 1 per cent in the third and 0.5 per cent were under 20 years of age.

Essential hypertension accounts for the overwhelming majority of cases of hypertensive heart disease, and hypertension associated with nephritis for most of the remainder. Several distinct diseases are associated with or accompanied by an elevation of blood pressure. Hypertension occurs in coarctation of the aorta, at times in urinary obstruction, in nephritis, in hyperthyroidism and is associated with some tumors of the adrenal and pituitary glands, and increased intracranial pressure. In these conditions it is rare that the hypertension is sufficiently marked or constant enough to produce hypertensive heart disease.

The high blood pressure is the cause of the heart disease; the cause of the hypertension is still clouded in uncertainty although some very promising investigations are currently being carried out. Of the known etiological factors heredity and age are the two most important. Hypertension is more common in the female sex particularly in that period in life in which menopause occurs. It is more common in colder climates. Obesity is frequently associated with hypertension although there is no constant correlation. An inconstant factor but one of undoubted importance is the nervous or emotional influence, at least in the early stages.

In the presence of essential hypertension a most important question is what is going on in the heart. The response of the heart to the increased load placed upon it is first hypertrophy. When it will begin to fail is a variable matter. This may manifest itself as angina pectoris or coronary thrombosis as a result of changes in the coronary arteries or congestive failure may develop, particularly failure of the left ventricle. When the left ventricle begins to fail dyspnea develops. Sometimes this appears suddenly, especially at night, in the form of so-called "cardiac asthma" or acute pulmonary edema. Palpitation and anginal pain are frequent symptoms; others are nervousness, headache, tinnitus, fatigue, and epistaxis. Examination will reveal cardiac enlargement. The rhythm may be regular or there may be extra systoles, auricular fibrillation, gallop rhythm or pulsus alternans.

Hypertensive heart disease usually is progressive. When it begins in youth it generally develops more rapidly and is more serious. Some patients live for many years with marked hypertension. The most common end result of hyper-

[5] Levine: Clinical Heart Disease, 1936, p. 143.

[6] White: Heart Disease, 1931, p. 391.

[7] White, P. D., and Jones, T. D.: Heart Disease and Disorders in New England, *Am. Heart Jour.*, 1928, III, p. 302.

tension is heart failure followed in order by cerebral hemorrhage or thrombosis, angina pectoris and coronary thrombosis and renal insufficiency.

SYPHILITIC HEART DISEASE

The incidence of syphilitic heart disease varies greatly in different sections of the country. It is much more common among negroes in whom, in some sections of the south, it accounts for about twenty-five per cent of cardiac disability.[8] It is much more common in males than in the female sex.

The chief pathological lesions in cardiovascular syphilis occur in the aorta. After the primary syphilitic lesion, usually many years elapse before there is any detectable evidence of involvement of the heart or aorta. Occasionally, however, this occurs in a year or two. Because of the usual lapse of a great many years before evidence of the syphilitic infection is manifested in the cardiovascular system, a majority of cases come to attention between 45 and 55 years of age, but a great many appear both earlier and later.

As stated above, cardiovascular syphilis is primarily a luetic aortitis. The ascending aorta is the portion most commonly affected although any part may become involved. The aortic wall becomes weakened, loses its elasticity and dilates. Three important secondary processes may develop and these changes are chiefly responsible for serious heart disease. The weakened aortic wall may dilate to produce a diffuse or saccular aneurysm. The process may involve the aortic valve to deform it and cause aortic insufficiency. Finally, it may narrow or occlude the mouths of the coronary arteries or other branches of the aorta.

Uncomplicated luetic aortitis produces only fairly mild symptoms or none at all. When aneurysm develops, the symptoms which follow result chiefly from pressure on neighboring structures and these may be the trachea or bronchi, arteries, nerves, or osseous tissues. Some very large aneurysms give rise to no symptoms.

Aortic valve disease is a much more common and more important accompaniment of luetic aortitis in that it accounts for most of the mortality and morbidity in syphilitic heart disease. When aortic regurgitation develops, cardiac enlargement and congestive failure may follow. The prognosis after the appearance of congestive symptoms is poor.

If the syphilitic process involves the mouths of the coronary arteries, any of the possibilities which are associated with coronary insufficiency may result. Angina pectoris may develop and sudden death may occur. In addition to the coronary arteries, other branches of the aorta may be more or less occluded. Other very rare types of syphilitic involvement of the heart consist of a diffuse luetic myocarditis and the presence of localized gumma.

In recent years syphilitic heart disease has become less prevalent. This has been due to more accurate diagnosis and more thorough treatment early in the disease before the development of cardiovascular manifestations. The preventive aspects of syphilis are of the greatest importance.

FUNCTIONAL HEART DISEASE

There is a very considerable group of people who complain of symptoms of circulatory distress, in whom there is no structural heart disease. Others present abnormal physical signs and may or may not have symptoms. These groups show the greatest variety of symptoms, the more important of which are palpitation, precordial pain or ache, dyspnea, sighing respiration, dizziness, faintiness, sweating, easy fatigability and tremor. These symptoms are commonest in young adults but are also common about the time of the climacteric and indicate instability of the nervous state and of vasomotor control. Some individuals present faint systolic murmurs which must be classified as benign. Various arrhythmias occur in patients who have no organic heart disease. Extra systoles or premature beats are very common, paroxysmal auricular tachycardia is not infrequent and even auricular fibrillation or flutter may occur in the otherwise normal heart.

In all of these conditions the important consideration is that they be recognized for what they are. Many individuals are condemned to a life of semi-invalidism or develop cardiac neuroses because a functional condition has been confused with organic heart disease. Adequate studies should be carried out to make a clear cut diagnosis possible and the patient should be informed in unmistakable language that he does or does not have organic heart disease. Patients with functional heart disease, because of their underlying anxieties and nervous instability, need more or less constant reassurance to enable them to carry on.

SUMMARY

Middle life is a physiologic period with wide limits in which the wearing down process has its beginnings. In so far as the heart is concerned, several disease processes manifest themselves in rapidly increasing numbers in this period. These types of heart disease are considered under the following headings: angina pectoris and coronary thrombosis; hypertensive heart disease; syphilitic heart disease; and functional heart disease. The important factors relating to incidence, etiology, diagnosis and prognosis have been discussed briefly.

ARE YOUR 1941 DUES PAID?

DELINQUENCY BEGINS

FEBRUARY 1, 1941

[8] White: Heart Disease, 1931, p. 358.

A YEAR OF ANESTHESIA AT INDIANAPOLIS CITY HOSPITAL*

WILLIAM B. ADAMS, M.D.
INDIANAPOLIS

Some time ago arrangements were completed for the employment of a full-time medical anesthetist at the Indianapolis City Hospital. The service began August 1, 1939, and this report covers the first twelve-month period under the new organization.

The duties of the anesthetist include anesthesia, supervision of blood transfusions and oxygen therapy, and instruction of the interns.

Until the above date, the department of anesthesia consisted of two physicians who devoted part time to their duties as anesthetists and, necessarily, the major portion of their time to private practice. No intern was assigned to assist them directly; the aid of men on the surgical services was drafted when necessary. Anesthesia was the major responsibility and interest of no one, and the house staff regarded it as necessary but uninviting. This attitude was due to ignorance; time did not permit much instruction in the science and art of anesthesia. The duty of drawing blood for transfusion was passed around among the interns whose patients required frequent administration of this form of therapy.

Although it was not possible to provide the personnel required by the size of the institution, the new department is an improvement and forms the basis for further improvement and expansion. At the start of the year there was the anesthetist, an intern assigned to the service for the period of one month, and a part-time assistant, a man of wide experience in anesthesia, who was called in after a short time to help during the morning at which time more surgery is scheduled. Later during the year the number of interns increased so that two men came on the service each month and the part-time assistant was dropped. This made the service less onerous and confining for the interns, increased the amount of individual training which these men could obtain, and made for better anesthesia service, since it is now possible to call on two members of the house staff with more or less experience. The anesthetist is available at all times for consultation, and can usually arrange personally to supervise the serious cases. Such small changes and increased personnel will lead to a department of adequate size with provision for training anesthetists and capable of performing with facility any procedure which may arise.

Since the amount of work which three people can accomplish is limited, the members of the department of anesthesia restricted its activities to the administration of anesthetics, supervision of affairs pertaining directly to this (such as evaluation of patients, decision as to the type of anesthesia to be used, and premedication), supervision of blood transfusions, drawing of the blood, and supervision and preparation of plasma. The house staff continued to manage many of the routine matters, as before, calling for consultation on unusual or questionable cases.

The most important function of the department is the administration of anesthetics. As shown in Table 1, the volume of this work at the Indianapolis City Hospital is quite large, and it is for the greater part carried on by the interns who are willing to work and eager to learn, but who have little experience in this field. To perform the work efficiently and satisfactorily while maintaining good quality and providing safe anesthesia, to crowd into the brief period of a month as many as possible of the variations of this specialty, are our problems. Since open drop ether is the safest anesthetic agent *in the hands of the inexperienced*, the men start the month by administering this type of anesthesia only and continue this all through the month to increase their skill. They read Guedel's *Inhalation Anesthesia*, provided in the departmental library, for grounding in the principles of this subject, and learn, first, the signs of anesthesia. As they become more proficient and demonstrate their understanding of the signs of anesthesia, they take up the closed system of administration under supervision. Less frequently used anesthetic agents and methods and regional procedures are demonstrated. Each intern usually administers a moderate number of spinal anesthesias, likewise under supervision. The interested and the apt pupil is encouraged and given as much freedom as possible. We attempt to teach the men to give a good open ether anesthesia and to have some understanding of the problems and possibilities which the subject affords.

The teaching program undertaken was an entirely new project in this institution, and it has done much to arouse interest in the subject of anesthesia. As mentioned above, the interns study Guedel, and those who are interested read further.

TABLE I

NUMBER OF CASES PERFORMED WITH EACH AGENT

Ether		2,032
Ethyl chloride-Ether		387
Ethyl chloride		189
Nitrous-oxide		106
Nitrous-oxide-ether		510
Cyclopropane		61
Avertin—basal		60
Avertin		39
Avertin—local		12
Intravenous Barbiturates		8
Total General Anesthesias		3,354
Spinal	528	
Regional	6	
Total General and Regional Anesthesias		3,888
Transfusions	1,350	
Local anesthesias—including Dentals		5,242

* Presented before the Section on Anesthesia of the Indiana State Medical Association at the French Lick meeting, October 30, 1940.

Informal discussion of the problems and questions which arise frequently is encouraged and participated in freely. For the intern group as a whole, we presented a series of short talks on the general principles of inhalation anesthesia, premedication, types of anesthesia and their special indications. The department participated in the staff meeting programs. A moving picture on an anesthesia subject had a large and appreciative audience. These various activities developed an interest in the subject and brought the realization that there is more to this subject than had appeared. A study of each patient rather than the routine pouring of ether became the rule. The interested interns request assignment to the service.

Anesthesia equipment included three Heidbrink gas machines—two kinetometers, one older model machine for administration of nitrous oxide-oxygen-ether with partial rebreathing; and a McKesson machine of recent manufacture. The purchase of an attachment for one of the Heidbrink machines to make possible the administration of cyclopropane, and the later acquisition of a similarly equipped machine of the same manufacture, made it possible to use this gas as well as nitrous oxide-oxygen-ether, and carbon dioxide. Ethylene had no particular advantage over these agents, and provision for its use was not made. Endotracheal catheters and a laryngoscope were added so that this type of anesthesia could be administered. Spinal and regional needles and syringes and ampules of intravenous barbiturates completed the necessary equipment.

The hospital owns oxygen tents, apparatus for administering nasal oxygen, B.L.B. masks, and a Drinker respirator. These were all in good working order. Because of the extra care necessary, oxygen tents are seldom used, the nasal route being the choice for oxygen therapy. B.L.B. masks are used occasionally.

In keeping with present trends, and as a matter of convenience, the anesthesia department assumed responsibility for blood transfusions. Blood was drawn for 1,350 of these, using Baxter Transfuso-Vacs which permit the storage of material not required for immediate use; with few exceptions, the blood was used within twenty-four hours. The person who draws the blood is responsible for the care of the donor and for the transport of the flask to the ward of the patient. Reactions occurred in slightly more than ten per cent of the patients who received transfusions. At one time this figure approached eighteen per cent. A change of rubber tubing and more thorough cleansing was followed by a reduction in the number of reactions. There were no deaths as a result of transfusions.

During the last four months of the year, preparation of plasma according to the technique described by Tatum, et. al.,[1] was undertaken. This is a valuable substitute for whole blood, for it supplies everything except the formed elements. It possesses certain advantages in that the plasma may be stored for long periods and can be administered without cross matching. Because many patients at the City Hospital are unable to obtain donors on short notice, some such substance will be quite valuable in the treatment of shock. Plasma is also useful in the treatment of burns, and its therapeutic use in peritonitis has been suggested. Arrangements are practically complete for the preparation of plasma in sufficient quantities to supply the needs of this institution.

The statistics presented with this study are of particular interest because they afford the only recent information on anesthesia at this hospital. There is some question as to the absolute accuracy of the findings because it was not possible to check each patient personally; the notes on the charts are frequently brief, carelessly made, or omitted. The figures do give some indication of what is happening, and they are included for this reason.

Ether by the open drop technic is the agent and method most frequently employed for reasons set forth earlier. Ethyl chloride as an induction agent and, for short anesthesias, was used often during the first six months; during the latter half of the year its use was discouraged in favor of safer agents. Closed anesthesia was a rarity until the period covered by this report when the number increased to 677 or twenty per cent of the total. Avertin in basal doses of sixty to ninety milligrams per kilogram is reserved for special cases. Intravenous and regional anesthesia were infrequently used because of the limitations of time and personnel rather than from a disregard for the advantages which these methods afford.

The major surgical procedures which were performed under inhalation anesthesia, numbering 1,555, are reviewed and the data are presented in the accompanying tables. Attention is directed to the respiratory complications which are classified according to their severity as major or minor.[2] Complications other than respiratory were very infrequently noted on the charts and it was deemed wiser to disregard them at this time.

The tables are self explanatory. A few points deserve special comment. Atelectasis and pneumonia are less frequent in this service following closed anesthesia, contrary to the belief held by some advocates of open ether. As shown in Table 4, herniorrhaphy is followed by the highest percentage of major respiratory complications, with miscellaneous procedures and appendectomies also high. Minor respiratory complications are frequent after cholecystectomies and gynecological laparotomies.

---

[1] Tatum, Major W. L., Elliott, J., and Nessett, N.: A Technique for the Preparation of a Substitute for Whole Blood Adaptable for Use During War Conditions. *Military Surgeon.* 85:6 December, 1939.

[2] Taylor, Ivan B., Bennett James M., and Waters, Ralph M.: Anesthesia at the Wisconsin General Hospital: A Three Year Statistical Report. Part I—Anesthetic Methods and Post-operative Respiratory Complications. *Anesth. and Analg.* 16:4, 187-192, July-August, 1937.

TABLE II

METHOD OF ANESTHESIA IN 1,555 CASES REVIEWED

Open Anesthesias—ether		1,024
Closed Anesthesias		531
Nitrous-oxide-ether	489	
Cyclopropane	42	
Avertin-Basal		39

TABLE III

RESPIRATORY COMPLICATIONS FOLLOWING OPEN ANESTHESIA AND CLOSED ANESTHESIA

Major Respiratory Complications:

	Open Method	*Closed Method*
Pneumonia	22	5
Massive Collapse	5	1
Pulmonary Edema	2	1
Total	29	7
Percentage (1,024 cases)	2.8%	1.3%

Minor Respiratory Complications:

	Open Method	*Closed Method*
Cough	46	40
Pharyngitis and Laryngitis	14	6
Bronchitis and Tracheitis	3	6
Others	....	1
Total	63	53
Percentage (531 cases)	6.1%	9.9%

TABLE IV

VARIOUS KINDS OF CASES AND THE RESPIRATORY COMPLICATIONS FOLLOWING THEM

		Major Resp. Complications	*Percentage*	*Minor Resp. Complications*	*Percentage*
Appendectomy	340	9	2.6%	23	6.7%
Herniorrhaphy	128	6	4.7%	18	14.1%
Cholecystectomy	50	1	2.0%	14	28%
Gastric Operations	21	0	0	2	9.5%
Thyroidectomy	37	0	0	0	0
Thoracoplasty	4	1*	25%	0	0
Amputations	31	0	0	0	0
Miscellaneous Procedures	141	5	3.5%	5	3.5%
Rectal Operations	12	0	0	1	8.6%
Gyn. Laparotomies	378	4	1.1%	45	11.9%
Other Gyn.	117	2	1.7%	3	2.6%
Orthopedic	133	2	1.5%	3	2.3%
G.U.	64	1	1.6%	2	3.2%
Plastic	8	0	0	0	0
ENT	73	1	1.4%	1	1.4%
Neuro-surgery	10	0	0	0	0

* Tuberculous pneumonia.

No study of spinal anesthesia has been made at this time. Most of the spinals given are low for rectal and genito-urinary procedures, some are for lower abdominal work, and a few are for high abdominal surgery. Our experience with this method has been satisfactory.

During the year there were four deaths under or immediately following anesthesia:

1. A sixty-nine-year old colored woman, a diabetic, was given a spinal anesthetic for amputation of a gangrenous foot. During and following the operation she was in a state of circulatory collapse due to involvement of many of the thoracic segments by the anesthetic solution. Death followed her return to the ward and was due to the fact that the necessary resuscitory measures were not initiated in surgery. This fatality occurred early in the year and can be laid to inexperience with spinal anesthesia. Later several other patients in apparently the same severe state of shock as this patient were successfully carried through operation.
2. A six-year-old white male expired suddenly after one hour and thirty-five minutes of open ether, induced with ethylchloride, as the surgeon was removing a mass of lymph nodes affected with Hodgkins disease from the deep left cervical region. Respiration and heart action ceased without warning and was due, probably, to stimulation of the carotid sinus.
3. A thirteen-year-old colored female died after one hour and twenty minutes of nitrous-oxide-ether anesthesia. The child was perhaps not robust enough to stand the slight added resistance of the gas machine in addition to the toxemia of appendicitis with rupture.
4. A seventeen-year-old colored female died ten minutes after the termination of an open ether anesthesia lasting two hours during which several convulsions occurred. This patient did not receive an intravenous barbiturate as did another with recovery.

CONCLUSIONS

1. The development of the department of anesthesia at Indianapolis City Hospital is briefly presented.
2. The department admittedly has many shortcomings; however, it is an improvement. The situation has excellent possibilities for the development of a center of anesthesia and it is toward such that we are progressing.
3. The statistics are presented and briefly discussed.
4. The deaths occurring under anesthesia are described.

DISCUSSION

J. M. Whitehead, M.D, Indianapolis: The Indianapolis City Hospital, and in fact the entire city of Indianapolis, may well feel proud of the progress thus far attained in its anesthesia department. I for one am justly proud of its accomplishments because it was organized and put in motion by one of our own graduate residents.

The field of anesthesia at the City Hospital has heretofore been virgin soil, cultivated around the stumps rather than after removing them. The great possibilities and immense amount of clinical material has been unexplored, simply because there has been no guiding hand to steer the course. The administration of an anesthetic was regarded as a penalty or a necessary evil by those required to do this work. Supervision to some extent was had, but by those who were forced by circumstances to devote a greater part of their time to other more remunerative work.

The management of an anesthetic department is by no means an easy matter and I speak from a slight personal experience. The numerous problems

which have to do not only with life and death but also with morbidity are not to be taken lightly. Responsibility has not ceased when the patient is returned alive to his bed.

Dr. Adams has done a wonderful piece of work and is deserving of much praise for the progress he has made in so short a time and with the limited help afforded him.

I should like to see the department at the City Hospital with its able director (who happens to be Dr. Mueller, also a former member of our organization) consist of four anesthesia residencies giving their full time and energies toward better anesthesia.

The remarkable results obtained by one man in one year certainly demonstrates the necessity of the department, and its continuance and enlargement is mandated by its achievement.

AGRANULOCYTIC ANGINA*

RALPH U. LESER, M.D.
INDIANAPOLIS

To the already imposing list of drugs which are thought to be responsible for the development of agranulocytic angina must be added certain members of the sulfonamide series.

Etiology. It seems likely that most cases of this disease prior to five years ago were due to the administration of amidopyrine in susceptible individuals. Other suspected causes are dinitrophenol, organic arsenicals, exposure to benzene, and excessive radiation. In latter years, sulfanilimide, sulfapyridine, and related compounds, with the exception, thus far, of sulfathiazol have been responsible for cases of the condition. Those who do not believe that amidopyrine is an etiological factor must explain the fact that the disease, before the sulfonamide drugs were used, was eight times more frequently found in the members of the medical family, that is, doctors, druggists, dentists, technicians and nurses, in short, those who have information concerning the analgesics containing the benzene ring.

Incidence. The disease affects middle-aged people more often, women more than men in the ratio of two to one, people of the better economic classes more frequently, and white people more often than Negroes.

Description. Murphy states the following clinical description of the disease: The typical attack of acute granulocytopenia or agranulocytosis is generally preceded or accompanied by evidence of an infection, perhaps most often focal in type, but sometimes generalized. The first signs may be weakness, fatigue, lassitude and collapse, but more often the onset is sudden with severe headache, high fever, rapid pulse, chill and frequently generalized aching, sore throat and spongy, sore gums. Following this, there may be, if treatment and consequently improvement be delayed, gangrenous lesions involving the throat and tonsillar region, the buccal or other mucous surfaces as the vagina, cervix, anus, or even the mucosa of the intestinal tract. With the latter development, diarrhea may occur. The ulcerations are not to be considered as the primary infection but as being secondary to the granulocytopenia. The ulcerations are characterized by lack of yellow color because of the absence of neutrophils. During the course of the illness there may occur a rash, herpes labialis, nausea and vomiting, dysphagia and occasionally epigastric pain and tenderness. Bronchopneumonia has been frequently present in the terminal states and may be accompanied by jaundice.

Hematological Findings. The chief diagnostic criterion is the marked decrease or total absence of the neutrophils in the peripheral blood. Following their disappearance the monocytes disappear and then the lymphocytes are diminished to a low level. If only 600 white cells are present, and all these are lymphocytes, then obviously about 2,000 lymphocytes are absent, so strictly speaking there is a diminution of all the white cells. It is felt that the reason there is no anemia is that the average agranulocytic angina patient does not live long enough for anemia to develop.

Pathology. The underlying pathology is apparently in the bone marrow. Either the marrow becomes quantitatively aplastic and does not produce a sufficient number of white cells or there may be an arrest of maturation at the myeloblastic level, and overcrowding of the marrow with myeloblasts. The cellular infiltrations are largely lymphocytic and from this there arises the supposition of some that the circulating lymphocytes are used to ward off infection and are consequently decreased in the circulating blood.

Course. The acute, severe development of the disease usually terminates fatally within a few days. The more chronic, insidious type may be complicated by various infectious processes and may finally recover or terminate fatally. The temperature remains high, the patient weak, fatigued, oftentimes irrational, delirious, and sometimes comatose. The patient may be quickly overwhelmed with infection or may undergo a stormy convalescence over a period of weeks. The clinical course is, therefore, variable to an extreme degree.

---

* Presented before the Section on Medicine of the Indiana State Medical Association at the French Lick meeting, October 30, 1940.

Clinical and hematological results of sulfonamide series administration. Cases are reported of patients who received pyramidon or other coal-tar derivatives for a variety of painful conditions. The resulting lesions of the oral mucosa are frequently regarded as being due to streptococcic sore throat and sulfanilimide or allied drugs are administered to a patient who already has a granulocytopenia. A hematological study early in the disease would have led to the proper diagnosis and the proper therapy. It should be emphasized that hematological studies should be done in all cases revealing any ulcerations of the mucous membrane before any type of therapy is instituted.

Long and Bliss[1] have noted a sharp drop in the leukocytes following a single dose of sulfanilimide in certain cases, and they have also noted that granulocytopenia may not occur until the sixtieth or seventieth day of treatment. Acute agranulocytosis has in their experience occurred on or after the fourteenth day after sulfanilimide or sulfapyridine therapy is begun.

The drop in temperature and improvement in general status of a patient with pneumonia following sulfapyridine administration are often followed by a recrudescence of fever and general signs of toxemia. This is frequently regarded as a return of the pneumonic infection and, in the absence of blood counts, the underlying cause, the development of granulocytopenia, is frequently unsuspected. Accordingly, sulfanilimide or sulfapyridine are recommended and the granulocytopenia is merely furthered. On many occasions, the ulcerations are late in putting in their appearance and in some cases are not present at all, making diagnosis doubly difficult. It can be stated without equivocation that total blood counts including differentials should be done daily on those receiving this group of drugs, that symptoms which precede and accompany agranulocytic angina should be kept constantly in mind by the physician and, when granulocytopenia appears, the sulfonamide drug should be stopped and therapy instituted.

The dosage of sulfapyridine which produces agranulocytosis varies widely, the average being 53 grams, the extremes in one series 18 to 90 grams.

The tendency of patients to accept advice from druggists and to self-medicate has caused numerous deaths from sulfanilimide and sulfapyridine medication.

Patients with initial blood counts low in white cells are much more likely to develop leukopenia. One group of observers performed leukocyte counts on 50 ambulant patients receiving 21 grams of sulfanilimide in 14 days and found that in 46% of the cases there was a polymorphonuclear leukopenia and in 40% a monocytosis.

[1] Perrin H. Long, M.D.; James W. Haviland, M.D.; Lydia B. Edwards, M.D.; and Eleanor Bliss, M.D.: The toxic manifestations of sulfanilamide and its derivatives. *J.A.M.A.*, August 3, 1940. pp. 364-368.

Results of Sulfathiazol Administration. Flippin and Pepper[2] treated 83 patients with pneumonia with sulfathiazol and there were no cases of hemolytic anemia, agranulocytosis or even leukopenia. Long and Bliss treated 271 patients for a variety of disorders with sulfathiazol and found that leukopenia and granulocytopenia occurred, but not a single case of acute agranulocytosis.

COMMENT

The public has been stampeded by the stories of miracles wrought by these drugs and demands that they be administered, whereas physicians often hesitate to use them because of a fear of the toxic manifestations. Acute agranulocytosis does not occur with prohibitive frequency and its coming can frequently be anticipated and the offending drug discontinued.

Treatment. Treatment is difficult to evaluate because no one observes enough cases, because spontaneous cures occur in many, and because some supposed recoveries are really remissions. An agent may seem to help in one attack and will not help in the next. The local lesions should be treated with saturated solution of sodium perborate or 2% solution of copper sulphate as often as 5 times a day. Abscesses and foci of infection should be drained surgically. Watkins and Giffin[3] gave 20-30 grams of bone marrow extract daily, orally, and state that a response occurs in 48 hours. Adenine sulphate, given intramuscularly in a dosage of one gram, three times a day, resulted in a mortality of 20% in one series, the average mortality in an untreated series being 75-80%.

Mortality in cases transfused with no other therapy is about 74%. Patients are probably kept alive with transfusions until specific therapy can be carried out. It is not believed that bone marrow output or replacement of cells, with the exception of red cells, is accomplished.

Kracke[4] feels that if the equivalent of 100 grams of fresh liver is given by intramuscular injection twice daily, distinct benefit results in 24-48 hours.

Pentnucleotide may be given intramuscularly or intravenously; 10 cc. should be given 4 times daily until the white count has definitely risen and young neutrophils have appeared. This usually occurs from three to six days after treatment is begun in favorable cases. Then 10 cc. are given once or twice daily until the white count has been normal for several days. The mortality rate in 85 cases collected by Jackson and Tighe[5] was only 35%.

[2] Reinhold, Flippin, and Schwartz: Observations on the Pharmacology and Toxicology of Sulfathiazol in Man. *Amer. J. Med. Sci.*, March, 1940. pp. 393-401.

[3] Giffin, H. Z., and Watkins, C. H.: Administration of Yellow Bone Marrow Extract in Agranulocytic Angina. *Minnesota Med.*, 21:62, 1938.

[4] Kracke: Diseases of the Blood & Atlas of Hematology. p. 142.

[5] Henry Jackson, Jr., M.D., and Thomas J. G. Tighe, A.B.: An Analysis of the Treatment and Mortality of three hundred and ninety cases of acute agranulocytic angina. *New England J. Med.*, May 4, 1939.

Prognosis. More patients recover now than did five years ago presumably because of the liberal use of liver extract, pentnucleotide, transfusion and the discontinuance of causative drugs during the illness. The patient who has recovered usually does not have recurrent attacks providing the cause of the first attack is ascertained and he carefully refrains from ingestion or contact with the causative agent. There are some who go into a chronic neutropenic state and go into this syndrome at irregular intervals.

CONCLUSIONS

1. To the previously described causes of granulocytopenia have been added the drugs of the sulfonamide series.

2. To date no cases of death from acute agranulocytosis have been reported following sulfathiazol therapy, although leukopenia and granulocytopenia have been observed, making it necessary to maintain a sharp watch for cases of agranulocytic angina.

3. The use of these drugs in cases of sore throat should be interdicted until we have inquired into the history as far as the type of drugs previously ingested is concerned and have made a hematological study.

4. During treatment of any condition with the sulfonamide drugs, we must watch for clinical and hematological signs of granulocytopenia and agranulocytic angina, and upon making a diagnosis, discontinue the drug being used and institute therapy.

5. The "relapse" of a pneumonia case may be in reality the development of acute agranulocytosis in a patient receiving a drug of the sulfonamide group.

6. The threat of occurrence of acute agranulocytosis is not serious enough to contraindicate use of these drugs if a careful clinical and hematological check be made.

7. Treatment consists of:

(a) Daily intensive parenteral liver therapy, and liver by mouth if possible.

(b) Repeated daily transfusions of 200 to 300 cc.

(c) Pentnucleotide therapy.

(d) A high caloric diet, good nursing, adequate cardiac and respiratory stimulation.

(e) Withdrawal of all analgesic drugs containing the benzene ring, and also all of the so-called barbiturates. Sedation may be accomplished by the use of the opiates.

THE TREATMENT OF COMMINUTED FRACTURES OF THE LOWER LEG*

WILLIAM DONALD DAVIDSON, M.D.
EVANSVILLE

The term "bumper fracture" was first applied to depressed fractures of the tibial condyle; at that time, automobile bumpers were higher from the ground than they are on the modern streamlined cars. The lesion which we see now is so characteristic that it is difficult to think of it as anything but a "bumper fracture," though technically this may be incorrect.

When an automobile bumper strikes a pedestrian, an extensively comminuted fracture of both bones of the leg in the middle third results, accompanied by soft tissue damage. This last may involve muscles, tendons, nerves and blood vessels. A massive hematoma results, which may be sufficiently large to cause circulatory disturbances. A compounding of the fracture often occurs. If the vertical upright on the bumper strikes the patient this may take the form of a long jagged skin defect which may involve the upper two-thirds of the leg.

The patient is usually in a state of shock when brought to the hospital. The leg is gently straightened and supported by a pillow splint. A dry sterile dressing is placed over any wounds, and if necessary a tourniquet is applied. Other than these measures, treatment of the fracture is postponed until such time as the patient has responded to the shock treatment which takes precedence over every other consideration.

We believe that as a rule these fractures are handled too much. Our treatment is such as to disturb the patient as little as possible. Portable x-rays are obtained to determine the extent of the injury. The degree of comminution is usually such as to require the use of traction for reduction of the fracture. Skin traction is contraindicated, due to the soft tissue damage; skeletal traction is far more satisfactory. Formerly we treated the simple fractures with skeletal traction and a Braun frame. Now we are inclined to agree with the observation of Watson-Jones that blebs do not develop under encircling plaster bandages. Also, a perfect immobilization is required for healing. As at the best, the healing time in these fractures is often prolonged far beyond the usual period, we feel that fixed skeletal traction and countertraction offers the most satisfactory method for the treatment of both the simple and compounded fractures of the lower leg.

Too zealous a skin preparation may easily convert a simple fracture into a compound fracture. We do not raise the leg from the table during the process of preparing the skin; we know where the pins are to be placed, and prepare the skin accord-

* Presented before the Section on Surgery of the Indiana State Medical Association at French Lick, October 30, 1940.

ingly. The pins are then inserted and the fracture reduced. We use a reduction frame, guarding against the possibility of over-traction by the use of a tape measure as well as roentgenographic examination. An anatomical repositioning of the fragments is often impossible, due to the degree of comminution; in such cases reduction consists largely of restoration of length and alignment, the fragments being molded to restore the normal contour of the leg as nearly as possible.

Even though the leg is supported in the frame, it is important to gain as much immediate immobilization as possible. For that reason, the cast is begun with a posterior splint. This may be formed from a plaster slab, but for the last year we have been using a thermoplastic splint material for that purpose. Thermex splints have several advantages over plaster. They are permeable to x-ray, and are lighter in weight than a plaster slab of equivalent strength. In its normal state, a Thermex splint is quite rigid; heated to a temperature of 140 degrees, a degree well tolerated by the skin, it becomes as pliable as a dish rag and may be molded readily to the part; it cools within three or four minutes and then is as rigid as before it was heated. We feel that Thermex provides a more immediate immobilization than can be obtained by the use of a posterior plaster slab. With the usual plaster technic it is difficult to incorporate the transfixing pins securely within the cast. For that reason, we use a long plaster slab formed from a six-inch bandage. This is folded lengthwise to reduce its width to three inches, and to double its thickness. This slab is applied in stirrup fashion about the heel and to the sides of the leg, slashing it to permit it to be molded about the pins. This technic provides a perfect immobilization, as the proximal and distal pins are joined by thick bars of plaster extending along the sides of the leg. The cast is completed with encircling turns of bandage. The strength of the cast is concentrated to its posterior and lateral aspects. Ice caps may be placed over the thin anterior surface to reduce swelling; if constriction should develop, the thin anterior wall of the cast may be split easily.

Compound fractures are likewise treated by fixed skeletal traction and countertraction. The pins are inserted before debridement of the wound. A thin strip is removed from the skin margin, and the wound irrigated with saline, removing all soft tissue which is obviously devitalized. The soft tissues are sutured if necessary. We are quite conservative in the removal of bone fragments, even those denuded of periosteum. We feel that they are of assistance in restoring the contour of the bone, and should they die will be incorporated within the callus or will serve as an autogenous bone graft and be replaced by new bone.

Chemotherapy has an important role in the treatment of compound fractures. Extremely favorable results have been reported from the use of sulfanilamide and its associated compounds sprinkled liberally into the wound. Prior to the introduction of these compounds, we routinely flushed the wound with Azochloramid in triacetin, and we are still partial to this preparation which liberates its chlorine content slowly within the deep recesses of the wound. We administer the newer compounds orally for a few days as a second line of defense against any possible infection.

The wound is closed if possible. If not, a vaseline pack is inserted and the wound covered by dry sterile dressings. The fracture is then reduced by the same technic as the simple fractures.

The fracture, simple or compound, is not disturbed for ten or twelve days. At that time, it may be advisable to change the cast, as swelling has subsided. Changing the cast does not disturb position of the fracture, as the reduction frame is again employed. The pins are locked in the frame before the cast is removed so that the fractured fragments are disturbed as little as possible. Should the position need correction, this may be done at this time.

The patient is permitted to leave the hospital when the cast is dry. We believe that the technic employed shortens the period of hospitalization, an important consideration. These fractures are often the basis for litigation; the prospects for settlement are more favorable when the necessary expenses are kept as low as possible.

Immobilization is continued until union is firm. Calcium diphosphate and Vitamin D are administered routinely as a means of promoting union. After the bone is solid, the cast is removed, and an Unna's paste boot applied. This serves a two-fold purpose. During the period of immobilization, the ligaments of the foot have become weakened; use of the Unna's paste boot prevents foot-strain. It likewise prevents the swelling commonly seen after removal of the cast. The boot is worn until normal tone is regained; it facilitates instead of hampering restoration of function.

DISCUSSION

Franklin E. Hagie, M.D. (Richmond): I am happy to have this opportunity to add a few remarks to Dr. Davidson's excellent paper. Rather than classify the fracture as a bumper fracture, I would prefer to speak of it as a bumper injury and then decide the type of fracture and give it a definite anatomical name. These fractures are lower down on the leg to-day because the cars are built lower.

These leg fractures situated between two hinge joints give a greater chance for a disability, and this is due to the disturbed relationship of the articular plane of the knee joint with the articular plane of the ankle joint, which so often occurs.

I have not used the material for external splint that Dr. Davidson mentioned. I use pins for traction and countertraction, check my reduction under the fluoroscope, and then incorporate the leg and pins in plaster.

If it is a simple fracture, and I am not fully satisfied with the reduction by the pin method, I do not hesitate to do an open reduction with internal fixation. A small error in reduction in this location gives greater disability than in any other part of the body. If it is a compound fracture I do not disturb it other than by the pin method. In Chicago, at Northwestern University, they use Dakin's solution for irrigating compound fractures. Very seldom do I irrigate compound fractures; I leave them alone, and I think they will clear up as fast.

I have never seen any help by giving calcium or any medication to stimulate fracture repair.

MISCH CASPER, M.D. (Louisville, Ky.): I am very much interested in fractures and in the very considerable change in their treatment during the last decade. The question of how a fracture can best be treated is a rather complicated state of affairs.

The name, bumper fracture, is really very expressive, and we must prepare ourselves for bumper fractures, as we are going to have many of them in this age of automobiles, with boys buying little old jalopies for which they pay about $25 down and 50 cents a week the rest of their lives, and carrying no liability insurance whatsoever. This latter factor makes collection of doctor and hospital bills impossible in a large number of cases. I noticed in the *Lancet* not long ago that with automobile injuries, the injured look to the physician not only for expert treatment and sympathy, but free service as well. Records show, says the *Lancet*, that about 90% of automobile injuries of all kinds pay the doctor nothing at all. That is the case in England, but if we look around, we notice that it is about the same over here. So, unless the doctor loves the work for its own sake, my advice would be not to specialize in fractures.

During my years of experience with fracture cases I have developed a treatment that I expect to report at an early date. We treat bumper fractures with a combination of walking iron, turnbuckles, and a hinged knee, all incorporated in plaster. With this combination, most of our patients can get out the next day on crutches. Keeping their joints working thus is a big advantage, and patients do not have the after-stiffness which after all gives more trouble than anything else. Our early turnbuckles were the same as those used on screen doors, costing ten or twenty cents apiece. Lately, Depuy Manufacturing Company has been making us a special turnbuckle that is entirely satisfactory. Thus complicated or high-priced apparatus is not essential to good results, though most orthopedic clinics now have some form of skeletal traction with the turnbuckle principle, some of them very complicated.

We put Steinman pins above and below the fracture; then put on the turnbuckles and we get all the extension that we need. We get actual, absolute skeletal traction and extension so that the bones fall back into place. It makes no difference whether there are half a dozen or more pieces; these fragments will fall back into place if they are given plenty of extension and counter-extension. Then we let the pins in and the turnbuckles, too, if so desired. We usually put the turnbuckles on the outside of the plaster, so that if we haven't quite enough extension, we can get a little more; and if we have too much we can lessen it. Putting the walking iron on transmits the weight above the fracture; also, the weight goes above the fracture at the knee, or to the upper pin. It is necessary to avoid having weight-bearing on the bottom of the foot or on the lower fragment, as it must be transferred above the fracture. Then we put a plaster above the knee and have the hinge arrangement: when the patient sits down he pulls up two lugs so that he can bend the knee; when he gets up on his crutches again, the lugs will fall themselves automatically and lock the joint, and his weight will be transmitted to the knee and the thigh. So here we have a very easy method of handling cases of bumper fracture.

Lately I have had two patients who have had both legs broken, and this complication necessarily made the cases much more difficult to handle; but such patients get up just the same with both legs broken, and by using crutches they can get along, and can even get around. If they cannot use crutches at first, let them sit up in a rolling chair. Getting the patient out of bed does him a great deal of good, and tends to speed his recovery by preventing atrophy of the muscles, stiffness of the joints, and so on.

The subject of compound bumper fractures is very interesting. As far as sulfanilamide is concerned, I use it in saline solution and irrigate the wound; or, if we have the patient in the hospital, we have some one inject the solution every couple of hours—about 60 grains to the pint of saline solution. That is a saturated solution of sulfanilamide, and goes to all parts of the wound. Also, I have had very good results from packing the wound tightly with sulfanilamide powder deep in every crevice.

There has been a tendency to take out the loose pieces of bone in compound, comminuted fractures, but we are coming around more and more to let those small fragments in, as they improve the callus and become incorporated in it. It has been found that scarcely ever do they become necrotic and require removal.

I think this is a very practical subject, which will come into its own very rapidly in the near future.

COMPLICATIONS OF PREGNANCY AND THEIR TREATMENT*

W. A. SHUCK, M.D.
MADISON, INDIANA

In this paper an attempt will be made to discuss the cardinal points of diagnosis and treatment of some of the more common complications of pregnancy. This subject is so large that a detailed discussion would be impractical; therefore, it it hoped that this paper may be of some interest to the general practitioner.

Hyperemesis gravidarum is distinguished by three stages which blend into each other very smoothly. The first stage is characterized by complete intolerance of the stomach for all foods and liquids. In the second stage the symptoms become aggravated, the patient loses weight, and has frequent fainting spells. The third stage, which certainly one does not wish to see, is characterized by delirium, stupor, and eventually *coma*.

Hyperemesis gravidarum may be divided into four classes: first, those in whom the vomiting is the main symptom of toxicosis; second, those in whom a functional neurosis exists; third, those in whom the vomiting is a reflex from the genitalia; fourth, those in whom the vomiting is due to some pathology within the abdomen. When careful search has revealed the cause, the treatment is to be pursued along the lines indicated. Morning meals one-half hour before rising, attention to bowels, sedation per rectum, small numerous meals high in carbohydrate with restriction of fats and proteins, separate sleeping room and correction of abdominal pathology all prove their merit and frequently are sufficient in early stages of the disease. Obstinate cases must be hospitalized and proper sedation, high carbohydrate diet, chlorides and glucose parenterally frequently restore the patient to normal.

Emptying the uterus is a last resort and the general appearance of the patient and evaluation of the past treatment of the case must be the only indication for this surgical procedure.

Eclampsia is not a disease but only a symptom, the most outstanding one of several underlying diseases, and before the convulsions break out, we have a stage full of symptoms and signs of most varied nature. This stage is called the pre-eclamptic stage. In the true eclamptic toxemia, it is thought that the circulating poison damages the liver primarily, and secondarily the vascular system and kidneys. An acute glomerular nephritis can be an effect of eclampsism, and when a patient with damaged kidneys becomes pregnant, the added strain may cause the organs to break down with resultant eclampsism.

In essential hypertension the added burden of pregnancy aggravates the woman's condition and if the disturbance of metabolism (eclampsism) is super added, convulsions or coma will result. In the last three conditions it is the unknown quantity of pregnancy, we call it toxemia, that lends to the underlying diseases its convulsive qualities. Differentiation of the forms of preeclampsia is difficult and the subsequent course of the diseases is often the only means to classify the case. The most important phase of treatment to the general practitioner is early recognition and prevention. Since we do not know the cause of eclampsia, our treatment is all empiric. If the earliest signs of the impending catastrophe, the preeclamptic toxemia, can be detected, emptying the uterus will almost invariably avert a fatal issue.

Neuritis in the pregnant woman is not uncommon. Polyneuritis with marked atrophy has been observed. Cases of hyperemesis some times terminate in multiple neuritis; however, this is thought to be due to a dietary deficiency of vitamin B. After delivery the symptoms usually subside rapidly, and the general treatment of neuritis will usually suffice during the pregnancy.

Many women of child bearing age have a simple anemia and particularly in them develops a microcytic hypochromic anemia. The failure of the stomach function reduces iron absorption; therefore, larger quantities of iron must be available in the diet. This condition might very well be confused with the macrocytic hyperchromic anemia. Hematologically, it resembles the true form, the red cells being very much reduced in number, often less than one million. The color index is high; the icteric index is raised. Progressive pallor, lemon yellow skin, edema, fainting and collapse in the latter months of pregnancy are probable and pregnancy is seldom carried to term. The prognosis is fair if numerous transfusions and liver is given freely. Cesarian section is to be contemplated; however, it is not always necessary.

A close relation exists between the skin and the changes in the general metabolism due to pregnancy. Pruritis is a very common affection usually localized on the vulva which usually begins toward the middle or end of pregnancy. Diabetes should always be considered. Neurasthenic and hysterical women more often have the itching. The pruritis usually is worse at night and during the summer months. Sedations are usually helpful. General hygienic conduct must be carried out during the remainder of the pregnancy.

More than half of all pregnant women show some edema of the feet, hand or face. This is a real anasarca with exudation of a serum in the tissues and is usually due to a renal or hepatic toxemia. It is produced by the alteration of the constitution of the blood or capillaries or both. It is present in

* Presented before the Section on Medicine of the Indiana State Medical Association at the French Lick meeting, October 30, 1940.

the morning in the feet, hands and eyelids, sometimes disappearing by night. An edema that grows worse during the day is usually due to mechanical causes. Rest in bed, reduction of the salt and water intake, and a non-protein diet usually suffice. Excessive edema is always pathologic and usually preeclamptic, therefore, treatment against the toxemia is indicated.

Varices of the leg or of the vulva or rectum are found in the majority of pregnant women. Edema often accompanies the condition and the patient complains of pain, fatigue, burning, and a feeling of tension in the affected parts. Complete disappearance after delivery is usually noted. The probable cause of the varicosities is disturbed circulation. A hemorrhage from a varicosity is easily controlled by pressure or suture and a patient should be taught how to stop hemorrhage while waiting for help. Phlebitis and periphlebitis are treated by rest in bed, elevation of the leg for a sufficient period for the thrombosis to become complete and firmly organized, thus avoiding the danger of embolism. Operative and injection treatment should be postponed until after delivery. Hemorrhoids occassionally are very obstinate, but usually can be treated medically.

Rarely do the first months of an ectopic gestation pass without symptoms which would direct attention to the pelvis as the seat of trouble. Usually the patient misses a period and after a few weeks of normal pregnancy complains of cramp-like pain in the lower abdomen, especially on the affected side. Irregular bloody vaginal discharges soon appear which simulate a threatening abortion. Any sudden severe pain on one side which radiates to the diaphragm and is accompanied by a feeling of faintness, nausea, and symptoms of shock should immediately make one suspicious of marked hemorrhage. The first hemorrhage is rarely fatal; however, in a few hours it reappears and the patient may die from the second or third hemorrhage. The suddenness of the shock that develops following hemorrhage is most characteristic. The prognosis varies with the degree of shock present. Bimanual examination should be conducted with the utmost gentleness to avoid rupturing the sac. Differentiation from angular pregnancy is difficult at bimanual examination, but the history of the case is usually sufficient. There is no expectant treatment for a growing ectopic gestation. The urgency of surgery will depend upon the urgency of the symptoms and a too fine differentiation should not be attempted.

The causes of abortion arbitrarily can be classified as fetal, maternal, and paternal. Death of the fetus nearly always brings on an abortion and is due to a multitude of pathological conditions. Between the death of the fetus and its expulsion, a period varying from a few hours to several months may elapse. Next to criminal interference, a decidual endometritis is the most frequent cause of abortion and is a pathologic change produced by too much estrin predisposing to hemorrhages in the decidua which kills the fetus or stimulates uterine contractions. Chronic metritis renders the womb still more intolerant to gestation. Acute infectious diseases and sepsis frequently cause abortion. Syphilis is a frequent cause of abortion after the fourth month. Trauma or violence are frequently advanced by the patient to explain the accident but are rarely the cause of abortion. Excessive coitus is frequently the cause of abortion in the newly married. Endocrine disturbances as well as dietary deficiences frequently may cause abortion. Without doubt, some men produce a sperm which is too weak to give the ovum the necessary generative impulse. In threatened abortion, bed rest with elevation of the foot and adequate sedation with morphine is often sufficient. Progesterone and wheat germ oil are recommended. One must not allow repeated hemorrhages to debilitate the woman. Inevitable abortion would be ideally treated by intelligent expectancy, meeting the indications as they arise; however, the patient may live far removed from the hospital or medical help and in such cases immediate termination of the pregnancy is advisable. In an incomplete abortion, if the cervix is open, the uterus should be emptied at once; if closed, the uterine cavity should be packed with gauze, but the packing should be removed the next day and the uterus should be properly curretted. In a septic condition, nourishment and liquids should be forced; in case of hemorrhage, the uterus should be packed and when the acute symptoms subside the uterus should be evacuated.

During pregnancy, slight repeated hemorrhages may indicate some disturbance of placentation. Sometimes the first slight hemorrhages under the placenta may set the uterus in vigorous action, quickly delivering the child, often alive. Severity of symptoms depends on the blood loss and shock, varying with the different causes and the degree of separation, and whether or not the uterine action is inaugurated. In concealed hemorrhages, pain is often more marked and symptoms of acute anemia may supervene together with shock, terminating in a condition of apathy which is soon replaced by restlessness or even delirium. Examination of the abdomen will show a uterus growing larger every hour and it is impossible to outline the fetus. The abdominal wall is very tense and the patient can tolerate only the lightest pressure. Labor usually comes on at once and the case may terminate spontaneously and safely for the mother, but almost invariably fatal for the infant. Not seldom the pains are weak and the woman dies, undelivered, from shock and hemorrhage unless immediate medical aid is rendered. Mild separations can be treated with bed rest and careful observation; wheat germ oil is recommended. The severe cases of abruption require prompt diagnosis and treatment. Three objects must be accomplished: the

hemorrhage must be stopped, the anemia must be relieved, and the uterus must be emptied.

In the last three months of pregnancy hemorrhage that is painless and causeless is almost pathognomonic of placenta praevia. The hemorrhages are usually progressive and one must not be misled by apparent recovery. Marginal placenta may not cause hemorrhage until the very beginning of labor. Many cases of placenta praevia give a history of a threatened abortion in the early months of pregnancy and a premature labor is common. Most deaths in placenta praevia come from hemorrhage, sepsis, rupture of the uterus, and air embolism. In deciding on the course of procedure in the individual case, many factors must be considered: surroundings of the patient, condition of the mother, the skill of the accoucheur, the degree of the praevia, whether the patient is in labor and the amount of the dilatation of the cervix. The patient should be immediately hospitalized if possible. With hospitalization one should make a constant effort to save the life of the child, but in the home one must use the method that will put an immediate stop to the hemorrhage, with, if necessary, less regard to the child. At all times during the treatment an attempt must be made to save blood. Every woman's ability to withstand bleeding varies. Internal examination certainly should be made with extreme care. It should be kept in mind that at any time immediate operation might become imperative. The surgical treatment of placenta praevia is quite technical.

The pregnant woman is not immune to any disease which may affect her in a non-pregnant state, and she is more susceptible to some. Pregnancy in general aggravates the diseases which occur, and in turn the gestation is endangered by them. Abortion or premature labor occurs with varying frequency in all the infectious diseases, and also often complicates the course of constitutional circulatory, respiratory, alimentary and kidney affections.

The use of sulfanilamide, sulfapyridine, and sulfathiazole in scarlatina, erysipelas, sepsis, and pneumonia should be carried out with extreme precaution owing to its noxious effect on the blood.

Pulmonary tuberculosis has a marked influence on a woman during the performance of the productive function. Pregnancy, however, is rarely interrupted, and then the infection is usually very florid and resembles a pneumonia more than a typical tuberculosis. During pregnancy the recognized treatment is carried out. In an active tuberculosis, abortion should be induced in the early months in all cases.

One should constantly be on the alert for the detection of syphilis in the pregnant woman; its baneful action is often discovered when least expected and it spreads its blight on all three individuals concerned in the propagation of the species.

A diseased heart, if compensation is good, often successfully carries the more than 50 per cent additional strain. The burden on the heart is more than mechanical; the congestion of the venous system leads to kidney and hepatic disturbances; a pulmonary congestion leads to dyspnea and carbonic acid narcosis, and a high position of the diaphragm with the slight decrease of vital capacity augments the respiratory difficulty and cyanosis. Edema of the extremities, ascites, dyspnea, attacks of suffocation, dry cough, palpitation, insomnia, and albuminuria all show that the compensation is broken and they warn the physician of impending danger.

It seems that pregnancy necessitates more thyroid activity. Cretins and the myxedematous fail, therefore, to respond to the demands on the thyroid and their disease usually grows worse. Slight enlargement of the thyroid is often found, as well as tremor, occasional high blood pressure, and warm, moist hands. Increase of the iodine metabolism in the thyroid is insufficient and small doses of this drug often bring quick and permanent relief.

Mild disturbances of the intestinal tract are very common during gestation. Gastric and intestinal indigestions are frequent and yield slowly to the usual remedies. It seems that pregnancy is a factor in the development of gallstones, and it is not rare that the gravida has attacks of billiary colic. This is due to interference with the free circulation of the bile, thickening of the same, from passive hyperemia of the liver, increased destruction of the red blood corpuscles, and the products of fetal metabolism, but infection and trauma are the exciting causes of the formation of stones. Operation should be postponed, if possible, until after delivery.

Primary appendicitis is rare during pregnancy, but recurrent disease is not. Perforation and suppurative peritonitis are very much more serious than outside of pregnancy; therefore, immediate appendectomy is indicated when once the diagnosis of acute appendicitis is made.

Primary acute glomerular nephritis is rare in pregnancy and cannot be clinically differentiated from the "pregnancy" nephritis. Chronic glomerular nephritis is always unfavorably affected by the advent of gestation, and an acute exacerbation is almost always observed. It begins to show in the early months with puffiness of the eyelids and conjunctiva and a general anasarca that is marked and which does not disappear in the recumbent position. The edema affects the legs and vulva. Convulsions occur in less than one-third of the cases. Chronic hypertensive vascular disease is more frequent and is usually found in the elder woman. It is accompanied by high arterial tension, thickening of the vessels, and hypertrophy of the heart. The effects of this form appear later in pregnancy. Retinitis, apoplexy and heart collapse are more frequent with cirrhotic kidney and convulsions are less frequent. All forms of nephritis have a very bad influence on the pregnancy, abor-

tion and premature labor being common. One of the causes of habitual death of the fetus and abortion and premature labor is chronic nephritis.

Care must be exercised in promising a cure by the induction of abortion or premature labor, because the condition may be a latent nephritis which has been awakened into activity. The main dangers of nephritis are edema of the lungs, hydropericardium, hydropleura, enormous anasarca, retinitis which may lead to permanent blindness, apoplexy, eclampsia, and acute heart collapse. The usual medical treatment is to be carried out but the doctor must remember that the fetus and the pregnant state require a special circumspection in the administering of drugs, diet, or other remedies. A well-developed nephritis discovered in the early months of pregnancy is an indication for an induction of abortion unless appropriate treatment shows marked relief from symptoms. A not infrequent complication of pregnancy is inflammation of the kidney pelvis and ureters. With a combination of stasis of urine, caused by the relaxation of the ureters, and bacteriuria, a pyelo-ureteritis is easily set up. However, the infection can reach the parts also via the lymphatics and blood from any focus. In these ascending infections, bladder symptoms precede the outbreak; in the others, kidney symptoms show first.

The objects of treatment to be accomplished are, first, drainage of the pelvis of the kidney and ureters; second, disinfection of the urinary tract; third, prevention of reinfection; fourth, general supportive and symptomatic measures.

Cystitis is very common and the treatment is along general principles.

Sugar may be found in the urine as a result of (1) true diabetes mellitus, which is rare, (2) lessened sugar tolerance of pregnancy, (3) hepatic inefficiency, (4) permeability of the kidney, (5) disturbance of the endocrine system, or (6) hyperfunction of the breasts. In the diabetic person, abortion, obesity, edema, overgrowth of the fetus and often intra-uterine death may occur in spite of the appropriate use of insulin. True diabetes, if complete, has a very bad prognosis, but since the advent of insulin this has been markedly changed. Pregnancy may develop a latent diabetes. Obesity when extreme may cause abortion, and the heart must be considered like that of myocarditis.

If there is a family taint, the gravida should be watched for the development of mental symptoms, but sometimes a healthy woman will develop a psychosis and then it is usually on a toxemic basis. Hysterical women suffer an exaggeration of their symptoms, and in them excess of grand hysteria are more common. Pregnancy is the most momentous thing in the woman's life and her mental adjustments, happy or unhappy, to the new condition will determine her health, spiritual as well as physical. She may be exalted or she may become obsessed with fear. Acute insanity is sometimes observed in women of poor nervous balance and intervention is justified when all other methods of treatment have failed. Traumatism and surgery are borne very well by the pregnant mother; however, they should be spared mental shocks if at all possible.

Vulvitis is not rare in gestation. Lack of cleanliness, obesity, and purulent discharges invite infection and eczema. Mycotic and gonorrheal infections are rather common. For mycosis vulvae, painting with 10 per cent silver nitrate or 1 per cent gentian violet and a boric acid dusting powder will be curative. Bartholinitis is almost always due to the gonococcus and an abcess should be cured before labor by excision if possible. Vaginitis is not so common as vulvitis but should be cured before labor. Acute and chronic gonorrhea may affect the uterine decidua and produce abortion but, as a rule, the gonorrheal endometritis remains latent until after delivery. Treatment must always be instituted during pregnancy, but gentle means are to be adopted. Prolonged rest in bed with suitable vaginal irrigations will usually quickly reduce the disease to its chronic state. Should abortion occur, currettage is not to be undertaken if it is avoidable.

Erosions and hypertrophy of the cervix are common and bleeding from an eroded cervix may simulate early abortion. In all cases of cervicitis, syphilis should not be forgotten. Applications of 10 per cent silver nitrate twice weekly usually suffice.

Salpingitis causes sterility because it is almost always bilateral and occlusive; however, a patient may develop a pus tube during pregnancy, if she has been infected and impregnated at the same time. This is a very serious complication and diagnosis is difficult. Surgery usually must be resorted to and in any case the situation is grave as labor will almost certainly rupture the abscess.

Hydatidiform mole is rather common and resembles a bunch of white grapes of most irregular size. All the chorion may be changed, meaning that the degeneration began early in gestation; however, there are many variations of the condition and a diseased decidua is usually found. Enlargement of the uterus faster than in normal pregnancy, and atypical irregular uterine hemorrhages are the two most prominent symptoms. Expulsion of the vesicular masses is usually complete and hemorrhage is always marked during the abortion unless growth has ceased. As soon as the diagnosis is made, the uterus must be emptied. Abortion should be done with maximum gentleness and every effort must be made to conserve blood.

Chorionepithelioma is a tumor developed from a fetal ectoderm which may begin during pregnancy (normal or abnormal) or after the uterus is emptied, and which is characterized by exuberant growth, early, extensive and general metastases, and rapid cachexia often combined with sepsis. Its cause is unknown; however, it seems very frequently to be preceded by hydatidiform mole. After an abortion or after labor, the patient complains

of a regular uterine hemorrhage which often rapidly exhausts the woman. Albuminuria, profound anemia, edema of the feet and puffiness of the eyes supervene and very often a vaginal discharge with a gangrenous odor may be present. A woman who gives a history of hydatidiform mole is to be considered as a candidate for chorionepithelioma for at least two years. If abnormal bleeding occurs, a diagnostic currettage is imperative. Usually there is an immense increase in the assays of the follicle-stimulating factor and the luteinizing hormone in the urine and the blood when a chorionepithelioma begins to grow. Zondek says these may reach one million and five hundred thousand mouse units respectively in one liter of morning urine. The Aschheim-Zondek remains positive as long as relics of chorionepithelioma exist in the body. Radical extirpation of the uterus, adnexa, and accessible metastases is indicated; radium and x-ray always follow operation as chorionepithelioma is very radio-sensitive.

Since the liquor amnii is a composite of fluids of disputed origin, the etiology of polyhydramnion and oligohydramnion is impossible; acute hydramnion, which is rather rare, is grave and usually leads to abortion. It begins during the fourth month and rapidly expands the uterus to colossal size, pressure symptoms being early and pronounced. Treatment of the acute hydramnion is by abortion by letting off the waters which must be done slowly to relieve shock. Chronic hydramnion is different from the acute in that the course is much less stormy and it does not lead so often to abortion, although premature labor is frequent. Enormous distention of the uterus may occur, with resulting cardiac distress and kidney insufficiency. The diagnosis lies most often between hydramnion and twins; however, they are often associated. The prognosis of acute hydramnion is good for the mother, because abortion usually terminates the case early. Prognosis for the child is fairly good in chronic hydramnion. Decrease of the amount of the liquor amnii is rare. The condition occurring early in fetation results in adhesions of the amnion to the fetus with resulting deformities.

THE CLINICAL SIGNIFICANCE AND TREATMENT OF STATES ASSOCIATED WITH LOW BASAL METABOLIC RATES*

HAROLD F. DUNLAP, M.D.
INDIANAPOLIS

The term hypothyroidism frequently is applied to designate any state in which the basal metabolic rate falls below the accepted limits of normal. Hypothyroidism, in the strict sense of the term, should designate an underfunction of the thyroid gland. Factors extrinsic to the thyroid gland may play a role in reducing the basal metabolic rate. In many states, in which the basal metabolic rate is reduced, it is questionable whether there is any actual underactivity of the thyroid gland and whether the thyroxine content of the tissues of the body is subnormal. In such instances it seems better to designate these states as states of hypometabolism rather than states of hypothyroidism.

The only known function of the thyroid gland is the elaboration and storage of the iodine containing hormone, thyroxine. Thyroxine acts in the tissues of the body as a catalytic agent accelerating the rate of heat production.

The thyroid gland, in a normal individual, controls approximately 40 per cent of heat production as measured by oxygen consumption. If the thyroid gland is destroyed by disease or operation, there is a gradual depletion in the thyroxine content of the cells of the body, which in turn results in a decreased rate of heat production. If the failure in thyroid function is complete, there is a gradual reduction in the level of the basal metabolic rate to a level of approximately –40 per cent. When the basal metabolic rate falls to a level of below –18 to –20 per cent, where there has been depletion of thyroxine in the tissues, certain characteristic physical changes occur. However, the basal metabolic rate may drop to a level below –18 to –20 per cent without developing these physical changes in states in which there is no apparent primary disease involving the thyroid gland. This comprises the group that might better be designated as states of hypometabolism.

A low basal metabolic rate may or may not be of clinical significance. It is in no sense per se diagnostic of hypothyroidism. At times a depressed rate of metabolism may be purely physiologic. In such an instance, in the absence of clinical symptoms and signs of disease, it is not of clinical significance and does not call for treatment. However, in association with other symptoms and signs considered suggestive of hypothyroidism, the finding of a low basal metabolic rate may be of inestimable value in establishing the diagnosis.

In this paper, for convenience of presentation, states associated with a low rate of metabolism will be considered in two general groups, namely, primary hypothyroidism or myxedema and hypometabolism without myxedema or so-called secondary hypothyroidism.

---

* Presented before the Section on Medicine of the Indiana State Medical Association at the French Lick meeting, October 30, 1940.

MYXEDEMA

Myxedema is a constitutional disease due to an insufficient or absent function of the thyroid gland and consequently represents a true state of hypothyroidism. The age of the individual at the onset of the disease alters the clinical picture, in so far as a lack of thyroxine in the tissues of the body inhibits normal physical and mental development, where the individual has not attained maturity. Thus myxedema may be considered under three headings, namely, (1) adult myxedema or Gull's disease, (2) juvenile or childhood myxedema, and (3) infantile myxedema or cretinism.

Adult Myxedema. Myxedema of this type occurs where the thyroid gland has been partially or completely destroyed by disease, by operation, or by a combination of the two. Most cases of myxedema occur spontaneously. Then the thyroid gland usually is atrophic. Myxedema of the spontaneous type usually is a permanent condition. At times thyroiditis plays a role, as the etiologic factor, in destroying the thyroid gland. Clinical manifestations usually develop during the third, fourth, or fifth decades of life. The sex incidence shows its occurrence in a ratio of 4 to 1 in the female as compared to the male. The onset of clinical manifestations is very insidious. There usually are no palpable pathologic changes in the thyroid gland. However, at times myxedema may occur in association with goiter or with a chronic thyroiditis. In the latter instance usually both lobes of the thyroid are very hard and irregular on palpation.

Myxedema not infrequently occurs following thyroidectomy. In such instances, microscopic examination of the thyroid tissue resected at the time of operation usually discloses thyroiditis. Symptoms usually develop rather rapidly, and the individual usually manifests clinical signs of myxedema within a few months following operation. Post-operative myxedema is a fairly frequent occurrence following resection of the thyroid gland in cases of exophthalmic goiter or Graves' disease. Clinical manifestations are apt to be of milder degree than in the spontaneous type. Post-operative myxedema may be transient in duration and disappear spontaneously.

The outstanding symptoms in myxedema are marked intolerance to cold, ready fatigability, marked drowsiness, and very annoying paraesthesias, stiffness, and aching of the extremities. Other bizarre and non-characteristic symptoms are frequently noted.

There is marked physical and mental sluggishness. The face presents a characteristic appearance: it appears bloated, there is marked edema about the eyes, there is a peculiar yellow pallor, the lashes and brows tend to fall out and may be absent, and the individual has a stupid appearance. Speech is slow and thick. There is mental retardation. At times psychotic manifestations are noted which disappear following elevation of the basal metabolic rate to a normal level. There is a generalized subcutaneous induration or non-pitting edema especially notable in the face, hands, and legs. There is usually a slight increase in weight but seldom is this increase of any marked degree. In fact, the occasional case of myxedema is quite thin. The skin is coarse, dry, cold, and scaly. There are pathognomonic reflex changes consisting in a slow relaxation component in the presence of a normal contraction component. This is best demonstrated by testing the Achilles jerk in a kneeling posture. At times the reflex is so slowed that it appears to be absent.

The characteristic features of myxedema, namely, the mental and physical sluggishness, the edema, and the pathognomonic reflex changes, occur when the basal metabolic rate is depressed below –18 to –20 per cent and disappear when it is elevated above that level.

The basal metabolic rate is constantly depressed in untreated cases, usually being about –40 per cent in spontaneous myxedema. In post-operative myxedema, the basal metabolic rate seldom falls to such low levels and more frequently is in the neighborhood of –20 to –25 per cent. There is usually a severe anemia in long standing cases. Hypercholesteremia is said to be a constant finding. At times, in doubtful cases, a high blood cholesterol level such as 400 mgms. per 100 cc. may be of great value in establishing the diagnosis.

Myxedema at times may be confused with chronic nephritis, pernicious anemia, hypopituitarism, low basal metabolic states without myxedema, and even psychotic states.

Treatment consists in the administration of thyroid substance in sufficient dosage to raise the basal metabolic rate to a normal level, and thereafter to determine the maintenance dosage necessary to hold the basal metabolic rate at such a level. Treatment in this instance consists in replacement therapy for a hormone which is absent or present in insufficient quantity and is specific therapy. Inasmuch as the various thyroid preparations on the market differ considerably in potency, the physician should accustom himself to the administration of some standard product and thereafter stick to that product. The basal metabolic rate may be elevated either by the rapid or the slow method. According to the rapid method, an adequate dosage of thyroid substance is administered in the course of a week to elevate the basal metabolic rate to an approximately normal level. Thus, in a well-developed case of myxedema, thyroid substance of a potent preparation is administered in a dosage of 4 grains per day for a period of 3 days and thereafter in a dosage of 3 grains per day for the remainder of the week. The basal metabolic rate then is determined. If the rate has reached a normal level, the dosage of thyroid substance is reduced to 2 grains per day for another week. The basal metabolic rate again is determined and the dosage of thyroid substance is altered as indicated by the level of the basal metabolic rate. The objection to this method is

that reactions are apt to occur and to be so severe as to force one to discontinue therapy. These reactions are characterized by nausea, vomiting, malaise, severe headache and backache, muscular cramps, and at times by marked elevation of the blood urea. Reactions usually occur in long standing cases of myxedema with a markedly depressed rate of metabolism. Where reactions occur it will be necessary to adopt the slow method of elevating the basal metabolic rate. By this method thyroid substance is administered in a dosage of approximately 2 grains per day. The severe cases will require about a month to elevate the rate to a normal level. After the basal metabolic rate has reached a normal level, it is essential to determine the dosage of thyroid substance required to maintain the rate at that level. The daily dosage of thyroid substance seldom exceeds 2 grains per day and frequently is as low as one grain per day. Inasmuch as thyroid substance acts over a prolonged time and is very slowly destroyed in the body, there is no reason for administering the daily requirement in divided dosage. The response of the case of myxedema to treatment is quite prompt and very dramatic. Treatment will almost certainly have to be carried out for the remainder of the individual's life.

Juvenile or Childhood Myxedema. This type of myxedema occurs in early childhood, in a child with normal thyroid function at birth. The clinical symptoms and signs are the same as those of adult myxedema except as failure to recognize the condition results in lack of proper physical and mental development due to the continuation of the state of hypothyroidism. It is very important to recognize these cases early, as efficient treatment should entirely control the disease and result in normal physical and mental development. Treatment is the same as in adult myxedema except as dosage will necessarily have to be reduced according to the age and weight of the child. Dosage should be regulated by basal metabolic rate determinations, if satisfactory rates can be secured.

Infantile Myxedema or Cretinism. Cretinism is due to a partial or complete underfunction of the thyroid gland present at birth. In sporadic cretinism there usually is a congenital absence of the thyroid gland. However, at times, a thyroiditis occurring in utero may destroy the thyroid gland. Such a cretin usually is the progeny of healthy parents. This is the type of cretinism usually encountered in the United States. In endemic cretinism there may be an atrophy of the thyroid gland, or there may be an associated goiter with inadequate thyroid function. This type of cretinism usually occurs in severe goiterogenous regions. Such a cretin usually is the progeny of goiterous and perhaps hypothyroid parents.

Clinical manifestations of cretinism are the same as those occurring in adult myxedema. There is, in addition, an inhibition in physical growth and cerebral development which results in a varying degree of dwarfism and imbecility dependent on the intensity of hypothyroidism. The cretin, if untreated, shows the body habitus of an infant with a large head, and with short extremities in relation to the torso. The cretin likewise has characteristic facies: a round, bloated, stupid face of a yellowish hue with an open mouth and a large, protuberant tongue.

Early diagnosis of cretinism and early institution of adequate treatment is imperative if permanent impairment of growth and mental development is to be forestalled. The later in life cretinism is recognized and treatment started, the poorer is the prognosis. Cretinism should be recognized on sight as a cretin presents quite a characteristic clinical picture. It is most apt to be confused with mongolian idiocy. Where the diagnosis is in doubt, thyroid substance may be administered as a therapeutic trial.

Treatment is the same as in myxedema except the thyroid substance is administered in smaller dosage. Supplemental treatment with iodine, especially where there is an associated enlargement of the thyroid gland, may prove beneficial. Prognosis, in general, is much poorer than in juvenile myxedema. Any hope for successful treatment is entirely dependent upon very early recognition and very early institution of adequate treatment with thyroid substance.

HYPOMETABOLISM WITHOUT MYXEDEMA

The second group of cases, designated as hypometabolism without myxedema, or low basal metabolic rate without myxedema, or secondary hypothyroidism, comprises by far the majority of the cases seen in which a low rate of metabolism is obtained. This group is made up of a large, unrelated collection of cases, grouped together merely by the fact that they have in common a low rate of metabolism. There is no conclusive evidence that the thyroid gland plays the predominant role in the production of the low rate of metabolism. Such cases, no matter how low the basal metabolic rate may fall, fail to show the characteristic clinical changes that take place in cases of primary hypothyroidism. The physiologic mechanism responsible for lowering the basal metabolic rate in this group has not been satisfactorily established, and may vary in the different states comprising this group. In some instances, such as those cases in which the pituitary gland is primarily involved, there is considerable evidence to support the view that a lack or deficiency of the thyrotropic hormone is responsible for the lowered rate of metabolism. However, in other instances, it appears that the constitutional makeup of the individual or other unknown factors are responsible for the depressed basal metabolic rate. Thus, this group of cases fails to show the subcutaneous edema, the physical and mental sluggishness, the characteristic facial appearance, the pathognomonic reflex changes, the characteristic speech, and the marked hypercholesteremia, unless

associated concurrent disease is present which would account for such change. However, these cases frequently do show clinical signs indicative of a lowered rate of metabolism, namely: pallor, dry skin, decreased tolerance to cold, and fatigability. These individuals usually are asthenic and their complaints are usually of a functional nature. In fact, at times they show many nervous manifestations more suggestive of hyperthyroidism than of hypothyroidism. The basal metabolic rate usually is not as low as in myxedema, seldom falling to a lower level than –20 to –25 percent.

Physiologically Low Rates. At times apparently healthy individuals, without symptoms or signs of disease, are found to have a low rate of metabolism. This is probably normal for a given individual. I have seen apparently healthy individuals with a consistently lowered rate of metabolism, as low as –30 percent. Such cases require no treatment.

Low Basal Metabolic Rates Associated with Endocrine Disturbances Other Than the Thyroid Gland. Diseases of endocrine origin, other than thyroid diseases, may show a low rate of metabolism. However, a significant lowering of the basal metabolic rate is not encountered in endocrine disturbances other than those associated with an underfunction of the anterior lobe of the pituitary gland and of the adrenal cortex.

States of hypopituitarism characteristically show a low basal metabolic rate. The basal metabolic rate is frequently extremely low, even as low as –40 to –45 percent in cases of chromophobe adenomata of the pituitary gland. Such cases should be diagnosed by the recognition of neurological symptoms and signs of brain tumor, including changes in the perimetric visual fields and roentgenographic destructive changes of the sella turcica, and by the recognition of the characteristic physical signs of hypopituitarism. Froelich's syndrome should be readily recognized by physical changes characteristic of pituitary underfunction and by genital infantilism. Such cases show obesity characteristically of the pituitary type. There may or may not be demonstrable changes in the perimetric visual fields and in the sella turcica. Simmond's disease, due to a failure of function of the entire anterior lobe of the pituitary gland, usually shows a very low basal metabolic rate. There is marked cachexia such as never occurs in cases of primary hypothyroidism. The clinical syndrome is very similar, though usually much more marked, to that of anorexia nervosa. At times obese individuals, especially young females, show a fatty distribution suggestive of that attributed to a state of hypopituitarism and show a lowered basal metabolic rate. The role of the pituitary gland in this group is problematic. Weight reduction through diet and an attempt to raise the basal metabolic rate through the administration of thyroid substance, frequently results in failure to secure a satisfactory response. In certain instances the administration of the thyreotropic pituitary hormone will produce an elevation of the basal metabolic rate where the administration of thyroid substance alone has not done so. Addison's disease usually shows a depressed rate of metabolism, but seldom does the rate fall to a level of below –20 percent. Cases of Addison's disease do not clinically resemble primary hypothyroidism, and there should be no confusion in diagnosis. The administration of thyroid substance usually aggravates the symptomatology.

In none of these cases, in which low basal metabolic rates are associated with other endocrine dysfunctions, do the characteristic physical changes occurring in myxedema develop; that is, they do not show the non-pitting edema, the pathognomonic reflex changes, etc., as occur in myxedema. In hypopituitarism the skin is of a fine, delicate texture rather than coarse and scaly as in myxedema. These cases fail to show any dramatic response to the administration of thyroid substance except, perhaps, a general tonic effect.

Menstrual Disturbances. A presenting complaint of amenorrhea, oligomenorrhea, or menorrhagia is not infrequently accompanied by a depressed rate of metabolism. Haines and Mussey[1] have shown that where these menstrual disturbances occurred without associated demonstrable pelvic disease, improved menstrual function occurred in about 75 per cent of the cases following elevation of the basal metabolic rate to a normal level.

Sterility and Habitual Abortion. A low basal metabolic rate is not infrequently obtained in cases of sterility or recurring abortion where there is no local pelvic disease or systemic disease to account for the condition. Elevation of the basal metabolic rate to a normal level in these instances may lead to conception and to pregnancy carrying through to term.

Nutritional Disturbances. Any marked disturbance in nutrition resulting from inadequate caloric intake or improper assimilation or utilization of food is usually conducive to a reduction in basal metabolism which in this instance is probably a protective mechanism. The state designated as anorexia nervosa is the best example of this group. According to Berkman,[2] the condition is probably initiated by psychic trauma which results in a marked decrease in appetite and a lessened caloric intake. This in turn leads to a reduction of basal metabolic rate as a protective mechanism. The lowered rate of metabolism leads to a further reduction in appetite and caloric intake. Thus, a vicious cycle is established. Weight loss and fatigability are frequently quite marked. The basal metabolic rate is frequently very low, being

[1] Haines, S. F. and Mussey, R. D: Certain menstrual disturbances associated with low basal metabolic rates without myxoedema, *J.A.M.A.* 1935, CV, 557.

[2] Berkman, J. M.: Anorexia nervosa, anorexia, inanition, and low basal metabolic rate, *Am. J. Med. Sc.*, 1930, CLXXX, 411.

depressed at times to a level of –30 to –40 percent. Elevation of the basal metabolic rate and a high caloric diet in most instances results in satisfactory clinical improvement.

Psychotic and Neurotic States. In certain psychotic states, notably schizophrenia and depressions and in certain functional nervous disturbances, the basal metabolic rate may be subnormal. In most instances elevation of the basal metabolic rate to a normal level produces no striking, clinical improvement.

Vasomotor Rhinitis. If the basal metabolic rate is depressed, not infrequently marked subjective improvement results following its elevation to a normal level.

Other States. Not infrequently a low rate of metabolism is found in association with many other conditions, either of an organic or functional nature, as chronic infectious arthritis, nephrosis, certain of the anemias, etc. The administration of thyroid substance in this group usually proves ineffective.

Certain of the cases in the second group designated as hypometabolism without myxedema are definitely benefited by the judicious administration of thyroid substance. Treatment is not specific but improvement probably results through the pharmaco dynamic action of thyroid substance. Results should not be expected unless the basal metabolic rate is depressed below the lower limits of normal, namely –15 percent. It is usually necessary to administer thyroid substance in larger dosage than in cases of primary hypothyroidism, both to elevate the metabolic rate to a normal level, and to hold it at such a level. The result of treatment with thyroid therapy in this group will be dependent upon the underlying physiologic or pathologic disturbance. Failure to secure appreciable clinical improvement will result in a fairly high percentage of the cases. Thyroid substance is administered according to the method discussed under treatment of myxedema.

SUMMARY

A low basal metabolic rate without accompanying characteristic physical signs does not indicate true hypothyroidism. The term hypothyroidism should be reserved to designate cases in which there is an actual failure of the thyroid gland to function normally resulting in a state of myxedema.

The adequate treatment of myxedema produces the most dramatic physical change occurring in the field of medicine. The patient suffering from myxedema who is restored to a normal state of health is the most grateful patient I have ever encountered.

A second group of cases was discussed which were characterized by the occurrence of a low basal metabolic rate, which never show any of the changes considered characteristic of a thyroid deficiency, and which are frequently incorrectly labeled as hypothyroidism. These cases may be benefited by the administration of thyroid substance depending on the underlying cause.

ABSTRACTS

U. S. SOCIETY CABLES FUNDS TO ENGLAND TO BUILD RADON PRODUCTION PLANT

Funds for the building of a subterranean plant for the production of radon, an effective substitute for radium, have been cabled to London, England, by the British War Relief Society in New York, *The Journal of the American Medical Association* for January 4 reports.

"Radiologists in England have been forced by German bombers to abandon most of their clinical work with radium owing to the danger of losing radium, although research is going ahead in other branches of medicine and physics despite the war," *The Journal* says. "The British War Relief Society in New York City, at the urgent request of the British Hospitals Association, has cabled $25,000 to London to establish a subterranean plant for the production of radon, an emanation product of radium that can be effectively used as a substitute.

"This American sponsored radon unit will provide radium treatment for the 50 per cent of cancer patients in Great Britain who have been unable to have that aid since the Germans began bombing Great Britain. The head of the British War Relief Society, Mr. Winthrop W. Aldrich, chairman of the board of the Chase National Bank, said that the radon bank will be set up far from the reach of bombs and would be under the direction of Prof. Sidney Russ, chief of the department of biophysics at the Middlesex Hospital Medical School. Professor Russ already has one small radon plant in operation which supplies half of England.

"Radon is a gas given off by radium and is as powerful as radium itself for a few days, according to Gioacchino Failla, physicist at the Memorial Hospital in New York, and it can be used in the same way as radium. After a few days, however, the radon tubes lose their effectiveness and become then completely harmless should they be lost.

"Radon was discovered simultaneously by Mme. Curie in France and by Sir Ernest Rutherford in England, and was first used in 1913 in the treatment of cancer."

DERMATITIS DUE TO NAIL POLISH MAY BE RELATIVELY COMMON

"Contact dermatitis due to nail polish probably is more common than the number of reported cases indicates," Francis A. Ellis, M.D., Baltimore, and Hayden Kirby-Smith, M.D., Washington, D. C., declare in *The Journal of the American Medical Association* for January 4 in a report on five such cases.

The eruptions occurred chiefly about the face, eyelids, neck and arms. The surface of the fingers near the nails in some cases was not affected. This was probably due to the thickness of the skin of these areas, the authors explain.

From patch tests with the ingredients of nail polish they conclude that any ingredient may act as a sensitizer but that the more likely agents are the clear lacquer and the dyes. "A patient sensitized to one brand of nail polish at times may use with impunity another brand of polish or the same brand containing a different dye," they say.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Mrs. J. S. Skobba, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
Edgar F. Kiser, M.D., Indianapolis.....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne.....Dec. 31, 1941
James F. Balch, M.D., Indianapolis.....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette.....Dec. 31, 1942
Herman M. Baker, M.D., Evansville.....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie.....Dec. 31, 1943

FEBRUARY, 1941

Editorials

HEART DISEASE

In the decade just closed, the average life span has increased approximately six years, according to recent statistical data of the Metropolitan Life Insurance Company. The advances in medical science and medical and public health education have resulted in remarkable progress in the prevention and alleviation of sickness and the prolongation of life. In this same period, however, new high mortalities were recorded for heart disease. Heart disease heads the list as a cause of death. It is responsible for almost one and one-half times as many deaths as cancer and tuberculosis combined. In addition to the enormous mortality, heart disease ranks among the leading causes of chronic illness and disability in this country. It is estimated that in the United States there are at least two million people suffering from cardiac disease. Many of these people are so crippled that they are unable to work for long periods. Frequently, prolonged medical and nursing care or hospitalization is required. The social and economic loss amounts to a staggering total.

There is an encouraging feature in the cardiac disease situation. Under twenty-five years of age the mortality has been falling significantly. In the younger age groups, cardiac disease is usually of infectious origin, resulting in valvular disease in most cases. Rheumatic fever and the infectious diseases of childhood have long been on the decline. As the incidence of these infections declines, the diseases which develop on this background will decrease. Improvement in valvular disease is greatest in early life but continues well up to fifty years. Syphilitic heart disease is also on the decline. A tremendous amount of publicity has been given to syphilis in recent years; it has received a thorough airing. As a result, undoubtedly there will be a more rapid reduction in mortality and morbidity from this source.

Chronic myocardial disease continues to increase, especially coronary artery disease. In a metropolitan community in Massachusetts, in 1935, deaths from coronary disease and angina pectoris outnumbered those from all other forms of heart disease. However, it is the opinion of most students of the problem that the apparent great increase is due chiefly to our better knowledge and our more accurate diagnosis and classification of these conditions. In certain respects the situation in regard to coronary disease is much better than it appears on the surface. As it is better understood, physicians and the general public will realize that the outlook in coronary disease is not utterly hopeless. A majority of cases of coronary thrombosis will recover from the acute attack and about twenty-five per cent will live for five years or more.

There is little doubt that the incidence of coronary artery disease will further increase. Since the proportion of older people in our population is rising and the degenerative changes of which we speak occur chiefly in this group, we must strive to postpone these changes as long as possible. The most urgent problem now relating to coronary disease is that of decreasing its incidence in the prime of life. Hypertension is one of the chief causes of coronary disease during this period. In the present state of our knowledge, the early detection and treatment of hypertension affords the best hope of reducing coronary disease.

THE CLINICAL PATHOLOGIST

The practice of clinical pathology as a specialty is the youngest of the special medical fields and like all youngsters in a large family it has had its troubles. In an article entitled "Clinical Pathology: Past, Present, and Future," Kilduffe,[1] in the Silver Anniversary Number of the *Journal of Laboratory and Clinical Medicine*, discusses some of the problems which have faced and which are facing the clinical pathologist. He calls on the medical profession as a whole to take thought of these problems because, as he points out, they have a direct bearing on the future of both general and special medical practice.

Advances of medical practice in the past two or three decades have been so immediately related to what in the past has been called "laboratory medicine" that it would be impossible for the medical man to practice efficiently without the aid of the

[1] Kilduffe, Robert A.: Clinical Pathology: Past, Present, and Future, *J. Lab. & Clin. Med.* 26:279, 1940.

clinical laboratory, and with the development of more exact knowledge of the use of laboratory procedures, the interpretation of the results of these procedures has become a highly complex field. Here the clinical pathologist comes into his own, and yet the value of the clinical pathologist has not always been fully appreciated by the clinician. It would be well for him to be reminded of the place which the clinical pathologist takes in clinical medicine. This has been well stated by Inglis[2]: "A well trained pathologist endowed with the true scientific spirit, one who can win the confidence of his clinical brethren, will prove to be a boon to any group of practitioners. In competition with none, he can, in his special field, be adviser to them all. If he is of the right calibre, he will bring an interest into their work such as they never dreamed of, and should there be some who feel overburdened with monotonous routine, he may save them from becoming mere carpenters and pillmongers of the profession!"

Kilduffe reminds us that it is very important to recall that clinical pathology is an essential phase of modern medicine and as such deserves more thought than we have given it in the past. He goes on to say that we are all interested in the present trend toward so-called "socialized medicine," and yet, "there has been little apparent interest in, and still less apparent appreciation of, the fact that socialization of clinical pathology is well on the way, if, indeed, it is not already here in appreciable measure. Let it be noted well that when the socialization of one phase of medical practice is fully and openly accomplished, the socialization of others will inevitably follow."

It would appear, therefore, that it is highly desirable for clinical medicine to take an immediate interest in the threats which appear to hang over the head of the clinical pathologist. These threats are of various types but one of the most important of them is the invasion of the field of medical diagnosis by some of the State Boards of Health, and in many instances with the encouragement and assistance of the Federal Government. The United States Public Health Service has also been very energetic in its invasion of the practice of laboratory medicine. Another potent source of danger to the clinical pathologist comes from various plans of "hospital and sickness insurance," as developed by hospitals and other corporate bodies.

These and other less obvious forces are at work to reduce the practice and limit the livelihood of the clinical pathologist, and it must be obvious, even to the casual observer, that these same forces may well have a deleterious effect on the whole practice of medicine. However, there are other forces which the clinician does not seem to recognize as destructive which are contributing to the rapid extinction of clinical pathology as a phase of the private practice of medicine. Such destructive forces are the various kinds of "diagnostic" or "clinical" laboratories as conducted by laymen. There is probably little that the clinician can do which will immediately change the course of governmental or corporate influences as they affect the clinical pathologist, but it is obvious that the clinician is entirely responsible for the presence of the "lay laboratory," for these could not exist if they did not have the support of the medical profession. The strange and unfortunate apathy of the medical profession to the problems of the clinical pathologist is difficult to understand when we realize that the problems of any part of organized medicine cannot be separated from the problems of the whole profession any more than the disease of one organ can be separated from the function of the body as an integrated whole.

Some say that the use of the "lay laboratory" is necessary because there is such a lack of qualified pathologists, but it must be obvious that young physicians will be reluctant to enter the field of clinical pathology as long as their means of making a suitable living is endangered by the destructive forces which are at work today in this field of medical practice.

If the medical profession accepts and encourages clinical pathology as a special field of medicine, the invasion of governmental and other destructive forces will not have their chief support, which is, at present, the apathy of the general practitioner.

No one can prophesy with any hope of accuracy what the future holds for the clinical pathologist any more than for any other medical specialist, but it seems that it would be well for us to consider most carefully the problems of clinical pathology as they are related to the problems of medicine at large. The whole structure of medical practice is threatened by destructive forces, and it is apparent that the line of defense has been most seriously jeopardized by the invasion of the special practice of clinical pathology. Medicine cannot protect itself in many regards but the clinician has almost complete power to prevent the destruction of the field of clinical pathology. If the medical profession continues to support the governmental and lay clinical laboratories, then the clinical pathologist and his practice of medicine as a private specialty is doomed. If, on the other hand, the medical profession supports its fellow practitioner in the field of clinical pathology, then the outside influences will disappear due to attrition.

But whatever is done must be done with all possible dispatch for the opportunity to decide for ourselves may soon be past and one of the branches of private medical practice may be gone, to be followed all too soon by others in their turn.

[2] Inglis, K.: Pathology in Practice, M. J. Australia 1:609, 1940.

SELECTIVE SERVICE REVELATIONS

Much comment is current regarding the physical examinations of young men called for military training. It has been found that a large number of this group is disqualified from such training because of physical disabilities of one sort or another. When plans for these examinations were being formulated it was generally thought that there would be a vast improvement over the findings during the first World War but such seems not to be the case. In some communities where large numbers of young men have been examined, as many as one-third have been disqualified; in other areas the figure is very much less. However, it is certain that a large per cent of this group will be rejected for military training.

This condition will afford opportunity for the proponents of socialized medicine again to set forth their claims that the regimentation of the medical profession is the answer to the problem of what to do to increase the standard of health among our people. Already there has been noted comment to the effect that if we had compulsory health insurance, if we had socialized medicine, this could be taken care of, pronto.

Following the first World War, there was a concerted effort to impress the people of America with the fact that too many of its population were physically unfit and that a goodly portion of these disabilities were remediable. We set forth on a campaign for "health examinations" at regular intervals; we issued to the profession manuals covering the subject, together with an examination blank that had been gotten together only after a prolonged study by a special committee. In fact, we offered to the people a program that, had it been carried out, would have resulted in a vast improvement in our health situation. But it did not "sell"; true it is that there was a decided step-up in the number of these examinations throughout the country, but the rank and file of physical delinquents utterly ignored our suggestions. Notwithstanding the failure of our populace to take due advantage of our offer, the facts are clear as to what our profession has done and is continuing to do.

There can be no doubt but that this nation is far healthier than it was in 1918. According to the figures of the Metropolitan Life Insurance Company (these figures based on the records of men of draft age), tuberculosis has declined more than 75 per cent. Heart disease is less prevalent, to the extent of 40 per cent in whites and 60 per cent in the Negroes. The same tabulation shows the death rates for tuberculosis, all based on 100,000 population, to have dropped from 509.0 to 61.8 for white males, and from 277.1 to 40.6 for white females; all this has occurred in the period from 1911 to 1929. And there are corresponding decreases in the death rate of the other "great killers."

These are facts and should be presented to the American citizenry in such a fashion as to convince them that not only have we achieved much in the control of disease but that, if given the opportunity to do so, we can correct many of the disabilities that now affect the young men of the nation. The old adage about leading a horse to water most certainly holds true in this instance. We can set up the machinery for physical examinations on a nation-wide scale; we can proffer professional services to all, with or without price, but we cannot compel them to take it!

There is much that we can do to controvert the propaganda being put forth by those short-sighted individuals who are obsessed with the notion that the sole remedy for all this lies in a radical change in our system of medicine. It behooves every member of the profession to know just what has been done, just what is being done and just what is planned for the future to bring about a change in our national health. The mere enactment of laws will not bring about health examinations; on various occasions the federal government has tried to bring about reformations by the simple expedient of "passing a law," but to little purpose. The late "noble experiment" might be regarded as a case in point.

It is solely a matter of education of the public: first, see to it that the public is thoroughly advised as to the state of the nation's health, then create a desire to make an improvement therein. It is not so much a mass problem as it is an individual problem; the individual, after all, is the one who must be convinced.

THE SECRETARIES' CONFERENCE

The Secretaries' Conference, held in the Indianapolis Athletic Club, January nineteenth, proved to be an outstanding success. The gross attendance was 161.

Several of the most important medico-economic problems before us today were thoroughly discussed, each of these problems having been outlined by those thoroughly familiar with them.

The program was opened with a discussion of the "Administrative Problems in the Care of the Indigent Sick" by Leo X. Smith, legal advisor of the Indiana Township Trustees Association; the leader in the discussion was Dr. J. S. Leffel, chairman of our Medical Relief Committee. As is usual when this topic is presented before a medical group, the general discussion was quite prolonged, numerous members airing their views and asking numerous questions. This proved to be one of the most popular points in the program.

"Health in Industry," by Dr. L. W. Spolyar, chief of the Bureau of Health in Industry, Indiana State Board of Health, offered a subject somewhat new to Indiana medicine, though the Board of Health established the department quite some time ago. Dr. Spolyar presented interesting data on this subject, a topic that soon will be a most familiar one

to Indiana physicians. Dr. E. S. Jones, of Hammond, led this discussion.

Then followed the presentation of "The Medical Defense Program in Indiana," by Captain Glen Ward Lee, chief of the Medical Division, Indiana Selective Service." This was an intimate discussion of many of the problems coming to the attention of Indiana physicians who are serving on the various boards in connection with the carrying out of selective service examinations. This live subject came in for a rather spirited discussion, led by Dr. Charles R. Bird, chairman of the Association committee in charge of this work.

"Everything Counts," according to Dr. Creighton Barker, executive secretary of the Connecticut State Medical Society. Dr. Barker's presentation will appear in the March number of The Journal.

Following the above program came a more intimate discussion of some of the problems of our local county medical society secretaries, led by an "attendance" talk by Dr. R. A. Fargher, of LaPorte County. Various officials and committee chairmen of the Association made short talks concerning their work.

The annual dinner was then announced, after which the guest speaker, Lieutenant-Colonel William C. Munly, of the Surgeon General's office, Washington, talked on "Participation of the Medical Department of the Army in the 1940-41 Military Training Program." This proved to be a most interesting presentation, Colonel Munly going into much detail concerning the medical requirements of the training program. His address will be published in the March Journal.

Thus came to a close another of the conferences, long since regarded as a highlight of the Association year. It occasions little wonder that the attendance should increase from year to year at such an astounding rate.

DOCTOR'S DISEASE

In this issue we publish the names of those Indiana physicians who have died during the year. For 1940, there are 89 names in the list which is considerably less than the 118 who died in 1939. The striking item in the causes of death is the evidence that the majority of medical men die of wear-out diseases. Heart disease again is the great killer, entering into the cause of death in 53 cases, thus passing the fifty per cent mark for the first time. Nephritis, cerebral hemorrhage, arteriosclerosis, hypertension, and senility are involved in the deaths of 37 physicians. Carcinoma claims 6, diabetes mellitus 3, influenza 4, auto wrecks 2, and suicide 4. There was one case of bronchopneumonia following influenza but none from lobar pneumonia.

Heart disease is an ever increasing cause of death among physicians and is an evidence of the strain that accompanies the practice of medicine. If we are to stop this loss of valuable men in the profession there must be more time off for vacations, more hours spent on some congenial hobby, more unbroken rest at night, less of that driving sense of hurry. We must find some escape from the rush and worry that at times sorely beset us. With the increase in the competitive side of our profession and the ambition of men to excel both in ability and in number of patients has come this increase in wear and tear. Let's slow down a bit. Let's get a hobby. Let's get a week-end camp. Let's see the far corners of our country. Let's live slower and longer.

Editorial Notes

100% SOCIETIES

SULLIVAN COUNTY—James B. Maple, Secretary
WHITLEY COUNTY—Park Huffman, Secretary

Terre Haute, according to press reports, is one of nineteen Indiana cities to organize a Red Cross Emergency Unit. Dr. D. R. Ulmer of that city is in charge of the group.

On January first the "blood-test law" became effective in Kentucky, thus completing the cycle —meaning that all our bordering states now have laws compelling all applicants for a marriage license to submit to a blood test.

At the January meeting of the Council it was voted to resume the scientific exhibit at our annual convention. For various reasons it was deemed inexpedient to attempt such an exhibit at the French Lick convention. The committee in charge of this work is headed by Dr. Clyde Culbertson, director of the University Hospitals' laboratory.

In 1940 Indiana reported two cases of injury from Fourth of July fireworks, a most commendable record in view of that of preceding years. It is to be hoped that police authorities all over the state will see to it that the fireworks ban is strictly enforced this year.

The Indianapolis Better Business Bureau seems determined to carry out its announced plan of eliminating the more dangerous quack doctors about the state. A news item indicates that one

William Schendledecker, of Indianapolis, is a late victim of the crusade. He was arrested on a warrant charging him with unlawful practice of medicine.

The Council also recommended that the custom of printing abstracts of papers to be read at our annual meetings in the pre-convention number of THE JOURNAL be discontinued. It was the general impression that these abstracts are not very widely read and that the elimination thereof will result in the saving of considerable space which may be used to a better advantage in other ways.

Again does the *Wisconsin Medical Journal* come out with a "Blue Book" number. Last year they published such a number, printing therein all the laws of that state relative to the practice of the healing arts, all about the laws relating to such taxes as affect physicians, the state hospital law, etc. It is a volume of interest to every one of the members of that state society. George Crownhart, executive secretary (and an attorney) supervised the production of the worth-while volume.

Believe it or not, *The Journal of the American Medical Association* has gone in for color; not *too* much color, just enough to add to the attractiveness of its front page. And there is no good reason why any medical magazine should not add a little "tone" to its title page. We held off a long time, in Indiana, but after seeing the bold colors adopted by Wisconsin, Colorado, et al., we joined up, and have received many compliments for having done so.

The research work being done at the Lilly Laboratory for Clinical Research, Indianapolis City Hospital, under the direction of Dr. Irvine H. Page, in the study of blood pressure, seems well on the way to a solution of the problem. In an article in the *Journal of Experimental Medicine*, published by the Rockefeller Institute, Dr. Page and his assistants report their most recent observations. As was the case with insulin in its early days, this treatment is not yet available for general distribution, but the medical profession will await further reports of its use with eager anticipation.

We dropped in on the mid-winter meeting of the Council, the other day; wanted to see how the Sage from Lafayette, meaning Romberger, handled the first meeting of that body since he succeeded Maynard Austin as chairman. "Rommy" did a right smart job of it, we thought. We also noted that there have been many changes in the makeup of that body, these last few months, and that the new members are from the younger group of our membership. Just another example of the truth lurking in the old adage that "Youth will be served."

Dr. Lyman R. Pearson of Indianapolis has called our attention to an error in our January editorial notes. On page 36, in a note intended to deal entirely with the injection treatment of hernia, the wording became changed and reference was made to the injection treatment of hemorrhoids instead of hernia. While the value of the injection treatment of hernia is questioned by many authorities, who believe that it should be used only by those who are especially qualified, Dr. Pearson points out that the injection treatment of hemorrhoids is well recognized and is used quite generally by qualified proctologists.

Hoosier farmers continue to arouse much interest in agricultural circles by their consistent winning of championships. For many years the Corn King of the nation has been found within our State: Indiana tomatoes are universally accorded the title of World's Best; now we have the potato champ, Farmer Gast, of Fulton county. In a patch of muck land he produced the enormous yield of 627.16 bushels of potatoes to the acre. He is a Purdue graduate and for some years served as county agricultural agent for his home community. And it should not be forgotten that at the recent International Stock Show, in Chicago, Hoosier farmers and Hoosier 4-H boys and girls returned to their homes with many blue ribbons.

And since writing the above we note a news dispatch to the effect that Indiana led all other states in the production of red clover seed for the year 1940.

The 1941 general assembly is now well on its way. Just where it is headed remains to be seen. However, we would urge our county medical societies to keep tuned in to our Association legislative committee. The drugless group is making a determined effort to be divorced from the Indiana State Board of Medical Registration. They seem to have discovered that the Board means to adhere to the medical law and to grant no special favors. Then, too, they have discovered that the Indianapolis Better Business Bureau means it when it says that quackery and illegal practice of the healing arts is to be curbed to a very great degree. Our legislative committee is active but it needs the help of every member of our Association. See to it that

your local legislative committee is active and that it responds to every request for information and assistance sent out by the parent committee.

Paul Nicholas Leech, for many years secretary of the Council on Pharmacy and Chemistry of the American Medical Association, died suddenly on January fourteenth from a cerebral hemorrhage; he was at work in his office at the time of the attack and passed away a few hours later. He had succeeded the late Dr. William A. Puckner as secretary of the Council and in the many years of such service had built up a reputation as one of the best pharmaceutical chemists in the country and was of invaluable service to organized medicine. Of slight stature, he was a bundle of energy, and he gave of his time and energy to a very high degree. He was so devoted to his work with the Conucil that a few years ago, when he was offered the position of head of the department of chemistry in one of our large universities, he chose to remain with the Association. Dr. Leech will be sorely missed by all who were associated with him.

It seems, after all, that Clark county, down on the Ohio river, has something on its sister county of Lake, up on Lake Michigan! Some time ago we told about a Lake county plan to circumvent the marriage-license, blood-test law, a plan that involved some connivance, some special post office arrangements, and a special messenger service, whereby license applicants could get their blood reports in about four hours. The Clark county plan, however, seems to have established the real record, making it possible to have the blood drawn and tested and the report ready for the county clerk in about two hours. It is now reported that the Lake county folk who were engaged in this sharp practice have given up in despair and that the usual two to four day period of waiting is again in vogue in that section. However, with the withdrawal of approval of the laboratory of the Clark County Memorial hospital by the Indiana State Board of Health, it seems likely that this hurry-up plan will do a fold-up, as it should. Just why any physician will enter into such an indecent arrangement is beyond our comprehension.

According to an announcement received from the American Post-Graduate Medical Association, London, a group of British physicians is planning the evacuation of five hundred to one thousand children, wishing to find homes for them in this country. They assert they wish to pay for the support of these children but, due to Treasury regulations forbidding the export of capital, they plan to pay into a trust fund something like one hundred pounds, this fund to be administered by a British insurance company. They ask that any American physicians who may be interested in the plan make application for one or more of these refugees on a form provided. Any of our members who may care to make inquiry regarding the plan may receive detailed information from the headquarters office.

We sometimes wonder if the physicians comprising the various boards in connection with the Selective Service fully realize the tremendous responsibility that the government has placed on them. Recently we saw a report that would indicate that some examiners might be a little lax in some of their examinations. For example, a lad was passed by a local board as fitted in every way for Army training; but when the Induction Board took him over, they found he had an artificial eye; another had a club foot; several had defective teeth—less than the minimum requirement of twelve teeth. We are glad to state that a very recent report received at headquarters indicates that Indiana Boards show less of such errors than most other states, but at the same time we would remind Board members that these examinations are highly important and should be made with the utmost care.

"American medicine, as an authority recently observed, has a weak spot. It is not a weakness affecting the patient—the sick man or woman anxiously seeking a return to health. Curiously enough this weakness has helped the patient, for the weakness lies in the fact that the medical profession has been so busy fighting disease in experimental laboratories as well as at the bedsides of the ill, that it has found little time to tell the public of its tremendous achievements.

"The record is there for all who wish to read it, and it tells, through the figures, a dramatic and inspirational story of an endless battle against disease and suffering and death.

"That battle has won victory after victory. In the period of a century and a half in this country the life expectancy of man has nearly doubled—from 35 to 62 years. During that time typhus, once one of the greatest killers, has all but disappeared. Smallpox and diphtheria, dreaded specters not so long ago, have been robbed of their terrors. Other great scourges—typhoid, diabetes, tuberculosis—have been brought under control and their mortality rates steadily reduced.

"That is what American medicine—private medicine—has done. And all over the land, in countless laboratories and institutes, privately financed and managed for the most part, the doctors and the scientists are fighting day and night the scourges which have not yet been conquered.

"Medicine is not an industry, but, like industry, it has rendered its greatest service to the people under a system which places no brakes upon the achievements of the individual and which encourages any man in any field to develop his talents to the utmost."—Editorial, Muncie *Press*, Jan. 3, 1941.

From time to time we have had much to say about various Indiana institutions, about the Indiana crops and what not, all because we are very proud of the state wherein we reside. Just now our attention is attracted by figures showing the number of visitors to our State park system. These figures indicate an ever-increasing interest in these beauty spots. Almost one and one-quarter million folk paid the ten-cent admission into our parks, these figures not including children. Every state in the Union was represented, together with a group of folk from other countries. The Indiana Dunes, as was to be expected, showed the largest attendance because of its proximity to Chicago; but other parks showed a large attendance, too. Turkey Run seems to have led this group, with an attendance figure of almost two hundred thousand paid admissions. And we would again call the attention of our readers to the fact that the upkeep of these parks costs the Hoosier taxpayers not one penny; the park expenses are paid from these ten-cent pieces collected from the visitors.

The following editorial from the *New York State Journal of Medicine*, October 1, 1940, expresses some thoughts that are of interest to Indiana physicians. We talk about "Public Relations and Personality," but many of us have not paused to think that Medicine, too, has a personality.

HAS MEDICINE A PERSONALITY?

Public contact with medicine is largely with the individual practitioner. It is a relationship principally of one person with another. Rarely is a patient conscious, as he talks to or is treated by his physician, of the institution; the corporate body of medicine; that vast complex of schools, thinkers, research workers, clinical experimenters, physicists, writers, scientific associations, libraries, hospitals, and publications; and the large company of respectable people — his associates — who have produced him, accumulated the knowledge which he uses, trained his hands, and ordered his study and whose services are always at his disposition. It was not always so. For centuries the individual practitioner stood nearly alone, with few books and fewer communications. He represented in his community all the medical knowledge there was. People thought him a learned man, and he did not deny it. He was medicine. Himself.

In the collective economy which grew up around him, he still remained an individual treating individual patients. But as the self-effacing institution of medicine grew behind him quietly and slowly, great collective institutions grew around his patient more rapidly: government, public health, social welfare, consumer's collectives, education, business, industry. To the management of these large government and business combines, the doctor's patient is merely a customer or a voter—the physician, a potential hired man—and the corporate body of medicine, a utility or a wraith according to the point of view. As these institutions grew, they acquired a definite corporate personality, defined and colored by their public acts and by the exuberant boisterousness, the clangor, of their publicity. But not medicine. It remained a corporative ghost behind the personality of the individual practicing physician, a shadow land of quiet humanitarian effort in a vital, raucous world, touching persons intimately, but not events of a kind commonly comprehended by the man on the street.

The net result of this development seems to be that there is little or no consciousness in the public mind of the personality of corporate medicine—no consciousness that it exists as a dynamically beneficent protectorate of the public medical interest. When this corporate personality is brought to public attention by large groups through the ordinary channels of lay communications, it is usually for a definite purpose. Thus, the character of organized medicine is rarely represented to the public as a positive one by those who know what kind of personality it is but as a negative and sometimes sinister ectoplasm, defined and delineated for the patient and the public by those who would, for their own purposes, hamstring or destroy it. Is there any reason why the real dynamic personality of medicine should not be introduced to the people, or has it a personality? How would *you* portray it? Where is there a monument symbolizing it? A painting? To what can the public point saying: That is medicine?

AVOID DELINQUENCY—

PAY YOUR 1941

DUES NOW!

President's Page

January 10, 1941.

Dear Doctor:

At this time the legislature is "under way." Many problems are presented, among which is a bill to reorganize the State Board of Health, one to break down the present medical practice act, and several bills of a social and economic nature which are a result of the activities involving national defense.

I believe the health of the people (preventive) should be administered by a board especially qualified. This idea also applies to health institutions caring for those unfortunates that could and would become a menace to all with whom they come in contact.

For some time past, many who are untrained and who are not qualified to care for the health of the people of this state are raising the cry of persecution by the medical profession. Far be it from such! The training of the medical profession and the lessons learned by the physicians in their contacts with the public have made them probably the most broad-minded profession.

Any one who receives the degree of M.D. has spent from seven to ten years of his life in study and preparation plus a large sum of money—all to be able to care for the health of the people. The cultists have not spent the time or the money in comparison to the M.D., and the cultists do not want to do so. Now I ask the question, "Isn't it only fair that anybody who wants to render the same kind of help to humanity should have the same kind and amount of training?"

It has been suggested that an investigation be made by a non-partisan group of the equipment and training of the medical schools and the schools of those who would treat disease other than by medicine and surgery.

I urge you physicians to take enough time out from your daily work to help put this idea across. I am sure that nobody could object to an investigation of this kind. All I ask is fairness—not persecution.

Social and economic health problems are sure to develop among the selectees for the National defense. Only time will tell what they will be. I know that you will be ready to meet any and all of these problems willingly and with the best of your ability when they are presented to you. You already have met the problem of picking the physically fit from the physically unfit, and I know you will continue to meet any emergency that occurs.

You have been asked to give freely so that the selective service act will be a success, even though you have been harassed by law suits and statements by the government that in the States of the Union, adequate medical care must prevail.

I wish for you liberty, the pursuit of happiness, a long sojourn in this free land of ours and all for which it stands.

Sincerely,

YOUR FEDERAL INCOME TAX

WILL H. SMITH
U. S. Collector of Internal Revenue
INDIANAPOLIS

The Revenue Act of 1940 has made important changes with respect to the liability of individuals for the filing of income tax returns. Individuals under the following circumstances are required to file returns covering the calendar year 1940:

> Single individuals, or married individuals not living with husband or wife, having a GROSS INCOME of $800 or more.
>
> Married individuals living together having a combined GROSS INCOME of $2,000 or more.

The net income is no longer to be used in determining the liability for the filing of a Federal income tax return. The liability of a citizen or resident of the United States to file a return is dependent upon his status as a married or single person, and the amount of his GROSS INCOME. Therefore, every citizen or resident of the United States will be required to file a return for the taxable year 1940 if his GROSS INCOME in 1940, regardless of the amount of his net income, comes within the amount specified above for his particular status. A return must be filed even though, by reason of allowable deductions from gross income and of allowable credits against net income, it develops that no tax is due.

Suggestions—Before preparing your return, study very carefully the instructions attached to the form. Early assembling of all data permits careful consideration of all problems, and should there be any questions concerning any items you would then have sufficient time to ascertain whether or not the items were allowable. Keep all memoranda from which the return was prepared. Don't fail to fill in all items and schedules required on the return, giving complete explanation of any questionable items; if necessary, attach additional sheets explaining the same. If there is any doubt about any items, call at the Internal Revenue Office on the third floor of the Post Office Building, Indianapolis, or any of the branch offices located in the following cities: East Chicago, Gary, Hammond, South Bend, Fort Wayne, Logansport, Lafayette, Marion, Anderson, Muncie, Terre Haute, Evansville, New Albany, Vincennes, Kokomo, and Columbus.

In addition, a deputy collector will visit the county seat towns during the filing period and advance publicity will be given before his arrival.

The filing period begins January 2, 1941, and ends at midnight March 15, 1941. Early filing of returns insures the taxpayer of avoiding any penalties which might be asserted for returns being filed after the due date.

In the case of married couples, the question has arisen several times as to whether or not a husband and wife should file joint or separate returns. The answer to this question depends upon the total income and upon the income and deductions of each. It is always advisable to make trial computations. First, on the assumption that separate returns will be filed, and second, on the assumption that a joint return will be used. Generally speaking, separate returns are advisable where the total net income is more than $6,000; joint returns where the total net income is less than $6,000.

Forms to Be Used—Form 1040-A should be used for GROSS INCOME of not more than $5,000 derived from salaries, wages, interest, dividends, and annuities. Form 1040 should be used for GROSS INCOME from salaries, wages, interest, dividends, and annuities of more than $5,000; or if any part of your income is derived from other than salaries, wages, interest, dividends, or annuities, Form 1040 should be used regardless of the amount of your income.

Professional Expenses—A professional man may deduct all necessary expenses incurred in the pursuit of his profession. Because many professional men—physicians in particular—use their residences both as offices and as their home, it is sometimes difficult to draw the line between business expenses and personal expenses. A professional man may deduct as a business expense the rental value of the rooms occupied by him as an office if he actually pays rent; also, the cost of light and heat furnished in these rooms. If he does not pay rent, but owns the property, he may deduct a pro rata part of the annual depreciation. So, too, he may deduct a portion, at least, of the wages of domestic servants whose time is partly occupied in taking care of his office. The taxpayer should not forget that the wages of servants ordinarily include not only the actual cash payments made to them, but also the value of their food and lodging, light, and special privileges furnished to them. If the servant's time is occupied entirely with the care of the professional man's office, he may deduct all of the wages as an expense. Where an office is maintained apart from the home, the entire rent may be deducted,

as well as the cost of light and heat, janitor service, telephone, stationery, etc.

A professional man would be justified in deducting the entire upkeep of an automobile used exclusively for business or professional purposes.

In computing net income, no deduction shall in any case be allowed in respect of personal, living, or family expenses. Insurance paid on a dwelling owned and occupied by a taxpayer is a personal expense and is not deductible. Premiums paid for life insurance by the insured are not deductible. The cost of daily transportation from the individual's home to his place of employment and return is a personal expense and, likewise, is not deductible.

Interest paid on loans, mortgages, or other indebtedness, may be deducted. The only exception is interest paid on a loan to purchase or carry tax exempt securities. Whether the loan is for personal or business reasons is immaterial. Interest on life insurance policy loans may be deducted if payment was actually made during 1940. However, if the interest was merely added to the original loan, no deduction will be allowed until the loan is repaid. The proportion of each payment under an FHA mortgage which represents interest paid may be deducted. The FHA insurance premium may also be deducted—it is an additional required payment for the use of money. All State and local taxes, except estate, inheritance, legacy, and gift taxes, or assessments for local benefits, are deductible by the person upon whom imposed if he pays them.

There are given below some exemptions of tax, as well as the persons who may deduct them:

Name of Tax	*Who May Deduct*
Admissions	Purchaser of ticket.
Cable Messages	Person paying.
Cigarettes	Manufacturer.
Club Dues	Club member.
Customs Duties	Person importing.
Gasoline	Manufacturer.
Passport Fees	Not a tax.
Safe Deposit Box, lease of	Person renting.
Stamp Taxes	Person paying for stamp.
Telegraph and Telepbone Messages	Person paying.

STATE AND LOCAL TAXES

State Gasoline tax—deductible by consumer.

Operator's license—deductible by operator.

Property taxes—deductible by person upon whom imposed; generally, a person in whose name property is listed. Taxes on real property standing in joint names of husband and wife may be deducted by spouse who pays the tax.

* * *

Contributions Paid — Contributions to domestic charitable, religious, scientific, or educational corporations or funds, no part of the earnings of which inures to the benefit of any private shareholder or individual, are deductible for the year in which actually paid. The deduction, however, is limited to 15% of the taxpayer's net income as otherwise computed. Direct contributions to needy individuals are not deductible. However, direct gifts to states, cities, school districts, or other domestic governmental units, for public purposes, may be deducted.

Losses—The amount of damage, not compensated for by insurance or otherwise, resulting from fire, storm, hurricane, or other casualty, is deductible. Thus, damage to one's personal automobile sustained in an accidental collision is deductible, if not compensated for by insurance. There may also be deducted the value of property lost by theft, if not compensated for by insurance. But losses attributable to the misplacement of property are not deductible. For example, if a diamond ring is lost while at the beach, no deduction is allowed.

Bad Debts—A deduction is allowed for debts found to be worthless and charged off within the year for which the return is made. If no books are kept, a debt will be considered "charged off" if claimed on the income tax return. The deduction is allowed for personal as well as business debts.

Bad debt deductions are scrutinized very closely, particularly where the deduction is for a debt owed by a member of the taxpayer's family. Very often proof will be demanded to show that the amount of the debt was not actually a gift. In all cases a taxpayer should be prepared to prove how he determined that a debt became worthless in a given year.

If it appears that some part of the debt will be repaid, but that collection of the full amount is improbable, a deduction may be taken for "partial worthlessness."

TWENTY-FIVE YEARS AGO

Dr. George F. Keiper, of Lafayette, was president, guarded by three vice-presidents, Willien of Terre Haute, Chenoweth of Winchester, and the inimitable Carver of Albion. Charley Combs, as a matter of course, was secretary. The section chairmen were, surgery—Oliver; medicine—Davidson, and Bulson for the eye, ear, nose and throat.

The Council carried the names of Davidson, Maple, Heitger, Stemm, Weinstein, Gronendyke, Kitchen, Kemper, Tucker, Nesbit, Morgan and McDonald.

Among the advertisements we noted that Swan-Myers, then of Indianapolis, announced that their laboratory was prepared to do Wassermanns and to make autogenous vaccines; and that Henry Alburger was director of Laboratories, while Bernard Erdman served as serologist.

The Waukesha Sanitorium specialized in Moor mud baths, which were highly recommended as a substitute for the European Spas.

The American Chicle Company advertised "Kiss-me" chewing gum as an adjunct in the management of indigestion and nervousness.

Mead-Johnson, then of Jersey City, talked about Dextri-Maltose. (It was about this time that they moved their plant to Evansville.)

Pitman-Moore advertised their experimental medicine program, with their laboratories available to members of the Association.

Eli Lilly Company spoke of focal infection, particularly that coming from dental infections; the use of Al-Cresta, coming from ipecac, was highly recommended in such conditions.

Fred Ruby wrote about the "Use and Mis-Use of Tinted Lenses in Refraction."

L. D. Brose, Evansville, had an article on "Vertigo."

Caylor, of Pennville, had an article on "Diseases of Stomach and Duodenum" while Edlavitch discussed "Intra-Spinal Treatment of Neuro-Syphilis."

Editor Bulson had begun to rave about the free clinic at the University of Michigan Medical School and Hospital, which was the opening of his campaign against the activities of Cabot who was then connected with the University of Michigan medical school.

Charles R. Bird, then of Greensburg, had sent in a poem, probably from a grateful patient, Bulson said:

"Here's my check for my bill tu date,
Fer Doctorin' me and my runnin' mate;
Fer curing us both uv our aches and pains,
Fer throat wash en quinine, tablets en pills,
Gosh."

An editorial note states that the medical department of the German army had announced that the authorities had ordered that all signs of quack doctors and advertisements of secret remedies be removed from public comfort stations, etc.

Stream pollution was discussed in an editorial note. (After twenty-five years we still have the problem with us. Oh, Lord, how long!)

Dr. F. A. Malmstone had located at Griffith.

Marcus Ravdin had undergone an operation for appendicitis in a Chicago hospital.

M. A. Treman, Adams, suffered a broken arm, due to a back-fire while starting his car.

Dr. Severance Burrage, of the Eli Lilly Company, had been elected president of the Indiana Society for the Prevention of Tuberculosis.

A. R. Kresler, secretary of the Jasper Newton county medical society, announced the complete program for the year.

Seven South Bend physicians had united to form the South Bend Clinic.

Only pasteurized milk to be sold in the city of Gary after March 1, 1916.

The Spencer County Medical Society had voted to hold a tuberculosis clinic at each of their monthly meetings.

ATTENDANCE AT COUNTY MEDICAL SOCIETY MEETINGS

ROBERT A. FARGHER, M.D.
LAPORTE

Undoubtedly, one of the foremost problems that confronts the officers of any medical society is the task of getting the members of their society to attend the meetings—whether that be weekly, monthly, or yearly. Just why any secretary or president of any medical society should find it necessary to issue gold engraved invitations a week before a scheduled meeting, remind each member of the meeting whenever he meets him on the street or in the hospital, telephone him on the day of the meeting, send a car and chauffeur a half hour before the meeting, and finally induce him to attend because a free meal is offered is almost beyond comprehension.

However, after taking over the job of secretary of our organization, I began to wonder if our society attendance was anywhere close to that of other medical societies throughout the state—especially when only 40-45 per cent of our members could be persuaded to attend ten monthly meetings during the year. I wrote to the headquarters of the Indiana State Medical Association asking what data they had relative to attendance at other county meetings throughout Indiana. There was no available information; hence, questionnaires were sent to all the secretaries in the state, asking the percentage of attendance in their counties. On the first poll, barely 50 per cent reported. Consequently, several months later a second request was issued. Sixteen counties either did not report, had no available figures, gave no useful information, or showed that the society was inactive. Some counties merely reported the exact number of members in attendance and then failed to report the number of memberships. The following is the information received:

Adams	35-40%
Allen	30%
Bartholomew	45-50%
Benton	
Boone	62.5%
*Carroll	62.6%
Cass	55%
Clark	
Clay	80%
Clinton	44%
Crawford	
Daviess-Martin	45-60%
*Dearborn-Ohio	65%
Decatur	50%
Dekalb	
Delaware-Blackford	50%
*Dubois	62½%
Elkhart	50%
Fayette-Franklin	70%
Floyd	50%
*Fountain-Warren	50%
Fulton	80%
*Gibson	70%
Grant	
Greene	60%
Hamilton	60%
Hancock	60%
Harrison	
Hendricks	75%
Henry	76%
Howard	
Huntington	72%
Jackson	33½%
*Jasper-Newton	70%
Jay	80-90%
Jefferson	
Jennings	65%
Johnson	
Knox	50%
Kosciusko	40%
*Lagrange	90%
Lake	50%
Laporte	40-45%
Lawrence	75%
Madison	50%
Marion	10%
Marshall	60%
Miami	50%
Monroe	80%
Montgomery	75%
Morgan	30%
Noble	80%
Orange	50%
Owen	60%
Parke-Vermillion	50%
Perry	50%
Pike	
Porter	45%
Posey	
Pulaski (society inactive)	
Putnam	60%
*Randolph	90%
Ripley	
Rush	60-75%
St. Joseph	35%
Scott	
Shelby	66⅔%
*Spencer	85%
Stark	
Steuben	60%
†Sullivan	94%
Switzerland	
Tippecanoe	50%
Tipton	
Vanderburgh	40-50%
Vigo	45%
Wabash	76%
Warrick	80%
Washington	80%
Wayne-Union	50%
Wells	75%
White	
Whitley	80-85%

**Recorded attendance. Other figures are secretaries' estimates.*

† Not included are 4 members who are physically unable to attend; if they are counted, attendance would be 80%.

These figures give an average of approximately 60 per cent attendance throughout the state. Just what conclusions can be gathered from the above data? To me the most striking thing is the fact that as the society grows in size, the lower the attendance figure falls; two of the largest societies in the state have the lowest attendance records. It is also obvious that the mean average is far too low. Every member should consider it a duty to himself, as well as to his organization, to attend the meetings and become an active member. In one sense it means his own security—especially in times such as the present. We, in our county, have tried to encourage attendance by having only top-notch speakers, making each meeting a dinner meeting; by frequently changing the place of meeting; and by encouraging more social activity. It seems, however, that the same old group shows up each time. We are hoping that our newly formed Woman's Auxiliary will boost our attendance somewhat.

In conclusion, I wish to say that an official of a certain medical society in this state feels that he has found the answer to the problem of getting members out to meetings, and that solution is to have a big free dinner. Upon retiring from office some time ago, this particular gentleman decided to treat his entire organization to a banquet—complete with champagne, etc. One of the members, who had not attended a meeting all year and who failed to answer his invitation, showed up after the second course had been served, held up the entire party while being waited on, drank three times as much wine as anyone else, excused himself before the rest had finished their dessert, and then couldn't quite find time to stay for the business meeting which followed. Now, if it takes a free banquet to get some of the slack members out, I'm for it every time—even if they come only to eat!

Deaths

APOLOGY TO DR. WILL J. MARTIN

THE JOURNAL regrets that a serious error was made in this column last month when the death of Dr. Will J. Martin of Kokomo was reported. An erroneous report in the lay press formed the basis for the published note. The physician who died was Dr. William H. Martin of Kokomo, who retired from active practice several years ago. Dr. Will J. Martin reports that he has not retired and has no intention of doing so. THE JOURNAL apologizes to Dr. Martin and deeply regrets any embarrassment which may have been caused through publication of the note in this column last month.

Zera M. Beaman, M.D., of North Manchester, died at his home on December twentieth, aged sixty. Dr. Beaman had been in ill health for about two years. Dr. Beaman graduated from Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1906. He located at North Manchester the following year, and specialized in proctology. During the World War he served as a captain at the 344th Field Hospital. He was president of the Wabash County Medical Society, was a member of the Indiana State Medical Association, and was a fellow of the American Medical Association.

* * *

Clement H. Bockoven, M.D., died at his home at Verona, Ohio, on January third, aged sixty-six. Dr. Bockoven had practiced at Plymouth, Indiana, for about fourteen years before moving to Verona three years ago. He was a graduate of the Illinois Medical College, Chicago. He was a former member of the Marshall County Medical Society.

* * *

Ulysses Grant Ewing, M.D., died December seventeenth at the Masonic Home in Franklin where he had lived for the past three years. He was seventy-seven years of age. Dr. Ewing had practiced at Richmond for thirty-seven years. He was a former member of the Wayne-Union County Medical Society.

* * *

Robert R. Morgan, M.D., of Boswell, Indiana, died at his home on January third, aged seventy-six. He graduated from the Medical College of Indiana, Indianapolis, in 1897 and had practiced at Bloomingdale, Indiana, before moving to Boswell. He had retired from active practice. Dr. Morgan was a former member of the Benton County Medical Society.

Furman Leaming Pyke, M.D., aged fifty-two, died at the Home Hospital at Lafayette on December twenty-fourth following an eight-month illness. Dr. Pyke was a native of Tippecanoe County, and was graduated from the Indiana University School of Medicine in 1913. He served as a lieutenant in the Medical Corps during the World War. He was a member of the Tippecanoe County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Franklin Pierce Reid, M.D., of Indianapolis, died at his home on January fifth, aged sixty-six. Dr. Reid graduated from the Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1906.

* * *

William R. Williamson, M.D., aged sixty, died at the Irene Byron Tuberculosis Sanatorium, at Fort Wayne, on January second, following a two month illness. Dr. Williamson graduated from the University of Michigan Homeopathic Medical School, Ann Arbor, in 1907.

* * *

Alois L. Ziliak, M.D., prominent Princeton physician, died at the home of his son, Dr. Lawrence Ziliak, of Bay City, Michigan, on December twenty-ninth. He was sixty-seven years of age. Dr. Ziliak graduated from the University of Michigan Medical School in 1898, and did postgraduate work in Vienna and Budapest. He was a fellow of the American College of Surgeons, the Gibson County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

Stanfield H. Keeney, M.D., retired Indianapolis physician, died January tenth, aged seventy-eight years. Dr. Keeney had practiced in Indianapolis for forty-two years. He graduated from the Central College of Physicians and Surgeons in Indianapolis in 1900, and was one of the first occupants of the Hume Mansur Building in Indianapolis; he maintained his offices in that building until his retirement this year. Dr. Keeney was a member of the Indianapolis (Marion County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

WILLIAM N. WISHARD, M.D., 1851-1941

William Niles Wishard, M.D., aged 89 years, died at his home in Indianapolis, January 23rd.

Dr. Wishard was born in Greenwood, Indiana, October 10, 1851, the son of Dr. William Henry and Harriet (Moreland) Wishard. He had his premedical education in the Southport public schools and Wabash College, and graduated in medicine at the Indiana Medical College in 1874 and Miami Medical College (now a part of the University of Cincinnati) in 1876. He began his practice in 1874 at Southport, removing to Indianapolis in 1876 where he practiced and resided from that date. He did postgraduate work in New York, Berlin, and London, and he received honorary degrees from Wabash College (A.M., 1890), College of Wooster, Ohio (LL.D., 1919), Indiana University (LL.D., 1924), Depauw University (Sc. D., 1929), and Hanover College (Sc. D., 1933).

Dr. Wishard had practiced medicine for sixty-seven years; for forty-nine years he served as head of the Department of Genito-Urinary Surgery in the Indiana University School of Medicine. He began his public service in 1876 when he was a deputy coroner in Indianapolis. His father, Dr. William H. Wishard, was the first to suggest the creation of a general state hospital, and our own Dr. Wishard had the pleasure, he said, of initiating and securing the erection of the first up-to-date general hospital in Indiana (the Indianapolis City Hospital) in 1883, and he served as superintendent of the Indianapolis City Hospital from 1879 to 1887.

With the cooperation of the Flower Mission, he established the first training school for nurses in Indiana which was the second training school for nurses west of the Alleghenies.

Dr. Wishard was constantly active in organized medicine and gave his support, his ideas and his efforts to promote worthwhile movements, and he strove unremittingly to encourage others to uphold the highest ideals and ethics in his profession. He was a member of the Founders' Group of the American Board of Urology. He served as president of the Mississippi Valley Medical Association, the Indiana State Medical Association, the Indianapolis Medical Society, the American Urological Association, and the Indiana State Board of Health. He was vice-president of the American Medical Association in 1919 and served as a member of the House of Delegates of that organization from 1902 to 1912. For many years he was a member of the Council of the Indiana State Medical Association. He was Surgeon General of Indiana with the rank of Colonel from 1890 to 1893 and was a member of the State Board of Health for eleven years. He was a Fellow of the American College of Surgeons and of the American Medical Association, and was a member of the American Association of Genito-Urinary Surgeons, the American Urological Association, and the French Urologic Society. He was a member of the consulting staffs of the Indianapolis City Hospital, St. Vincent's Hospital, Deaconess Hospital and Methodist Hospital for many years.

As chairman of the Indiana State Medical Association's Committee on Public Policy and Legislation for more than a score of years, Dr. Wishard wrote and secured the passage of the medical practice act, the law establishing high standards in this state. Following retirement from active legislative work, he guided the establishment of the Bureau of Publicity of the Indiana State Medical Association which now supplies press releases for more than 300 newspapers in this and surrounding states.

Dr. Wishard has served as chairman of this Bureau since its organization nearly eighteen years ago. He has given forty-two years of service on these two important committees—the Bureau of Publicity and the Committee on Public Policy and Legislation. He had been a member of the Indiana State Medical Association since 1875.

Dr. Wishard was a member of the First Presbyterian Church which he served as an elder for many years, and was a member of the Scottish Rite Masonic Lodge for more than fifty years.

Dr. Wishard's scientific accomplishments were many:

He was the first physician in Indiana to make genito-urinary surgery an exclusive specialty (1887); he was the first in Indiana and one of the first in the United States to hold a chair devoted exclusively to genito-urinary surgery—and it was established in 1887 as a department of the Medical College of Indiana; he was the first surgeon to apply the cautery to the prostate under visual observation, which he did in 1890 and reported in a paper read before the American Association of Genito-Urinary Surgeons at Washington in September 1891; he was probably the first, or one of the first, to do a complete enucleation of the prostate through a median perineal opening.

Dr. Wishard practiced medicine for sixty-seven years; his father had practiced for sixty-five years.

On the occasion of the sixtieth anniversary of his graduation from Indiana Medical College, the class of 1934 of the Indiana University School of Medicine sponsored a Wishard Anniversary Banquet at the Riley Hospital in Indianapolis which was attended not only by the class members but invited guests who were Dr. Wishard's old friends and associates. The forty-two page booklet, containing the addresses presented in honor of Dr. Wishard at that time, is a testimonial of the affectionate regard and esteem which his friends and confreres held for him.

THE JOURNAL is indebted to Dr. Wishard for its very existence for his influence in aiding Dr. Albert Bulson to establish the magazine in 1908 was by no means inconsiderable. His interest, his encouragement, and his insistence upon the very highest standards in ethics in every phase of work connected with THE JOURNAL were unfailing throughout the thirty-three years of the magazine's existence during his life time. It is due to Dr. Wishard's reminder and request that the list of deaths of all Indiana physicians during the year 1940 is published in this issue of THE JOURNAL.

Dr. Wishard contributed numerous scientific articles to various medical publications, and was the author of the following articles published in this JOURNAL:

Some Advantages and Possible Errors of the Radiograph in Renal, Ureteral and Bladder Surgery. (1908)

Catheters, Sounds and Drainage Tubes. Their Selection, Care and Use. (1911)

Address to Graduation Class, Indianapolis City Hospital Training School for Nurses. (1911)

Prostatic Hypertrophy. (1918)

Foreign Bodies in the Bladder and Cystoscope as Aid in Their Removal. (1919)

Resume of Past Two Years' Prostatic Work. (1920)

Memoriam of A. C. Kimberlin and F. B. Wynn. (1923)

Contraception. (1929)

First Formal Effort to Obtain a General Hospital for Indiana. (1931)

History of THE JOURNAL. (1932)

Transurethral Operations Upon the Prostate. (1933)

Early Days of Flower Mission Training School. (1934)

Medical Legislation and Medical Education. (1934)

Dr. Wishard was buried in Crown Hill Cemetery, Indianapolis, January 25, 1941.

He is survived by the widow, Mrs. Frances Scoville Wishard, two sons, Dr. William N. Wishard, Jr., of Indianapolis, and Rev. Charles Scoville Wishard of Washington, D.C., a sister, Miss Elizabeth Wishard of Indianapolis, and three grandchildren.

* * *

(Dr. Wishard's death occurred just as this issue of THE JOURNAL was going to press which precluded the possibility of suitable editorial comment. An editorial concerning Dr. Wishard will appear in the March issue.)

DEATHS OF INDIANA PHYSICIANS IN 1940

(M) Member of I. S. M. A.; (H) Honorary Member; (R) Retired

Name	*Age*	*Date*	*Place*	*Cause of Death*
Hauck, Joseph H. (M)	65	Jan. 4	Terre Haute	Diabetes mellitus, coronary thrombosis.
Hardwick, Robert L.	76	Jan. 5	Mt. Vernon	Apoplexy, arteriosclerosis, intestinal carcinoma.
Johnson, Thomas B. (M)	57	Jan. 6	Indianapolis	Coronary occlusion, arteriosclerosis.
Stewart, Willis B.	84	Jan. 7	Indianapolis	Chronic myocarditis.
Adye, C. H. (R)	69	Jan. 13	Newtonville	Coronary occlusion.
Byler, Joseph M.	92	Jan. 24	Warsaw	Arteriosclerosis, chronic interstitial nephritis.
Clevenger, Jas. A. (H)	79	Jan. 28	Garrett	Coronary occlusion.
Kendall, John T.	75	Jan. 30	Argos	Intestinal obstruction.
Ludwick, Bernar D. (R)	75	Feb. 3	Franklin	Chronic nephritis, arteriosclerosis.
Jessup, John T.	91	Feb. 10	Elwood	Organic heart disease.
Berteling, John B. (H)	80	Feb. 10	South Bend	Chronic myocarditis, arteriosclerosis.
Miller, James M. (H)	79	Feb. 16	Decatur	Coronary occlusion, arteriosclerosis.
Akester, John	73	Feb. 20	Hardinsburg	Prostatic carcinoma.
Like, Ottis (R)	58	Feb. 21	Monroe City	Cardiovascular-renal disease.
Kasdorf, George C.	68	Feb. 21	Michigan City	Cerebral hemorrhage, arteriosclerosis.
Symon, Wm. G. (M)	54	Feb. 24	Garrett	Coronary occlusion, hypertensive heart disease.
Reid, Horace W. (R)	88	Feb. 28	Oakland City	Myocarditis, influenza.
Ellingwood, James B. (M)	58	Mar. 8	Fortville	Cerebral hemorrhage, hypertension.
Thomas, Harry B. (M)	54	Mar. 10	Bloomington	Cerebral tumor.
Newell, Andrew S. (M)	60	Mar. 15	Converse	Cardiovascular-renal disease.
Radcliffe, Floyd E. (M)	64	Mar. 15	Bourbon	Coronary thrombosis.
Siders, W. Bert (M)	63	Mar. 16	Warsaw	Carcinoma of sigmoid.
Anderson, Don A. (M)	67	Mar. 17	Indianapolis	Cardiac insufficiency, influenza.
McArdle, John E. (M)	55	Mar. 17	Fort Wayne	Cerebral hemorrhage, hypertension.
Wetherill, R. B. (H)	80	Mar. 27	Lafayette	Broncho pneumonia, influenza.
Laughlin, Chas. E. (H)	84	Mar. 29	Evansville	Diabetes mellitus.
Payton, Lewis	88	April 13	Muncie	Mitral disease, senile debility.
Hammond, F. E.	68	April 23	French Lick	Coronary occlusion, chronic myocarditis, arteriosclerosis.
Bucher, J. C.	86	April 23	Wheatfield	Senility.
Kitson, Frank S. (M)	69	April 25	N. Manchester	Coronary occlusion, softening of the brain.
Oilar, Arthur L.	48	April 25	Russiaville	Cardiac infarct, coronary thrombosis.
Willoughby, George E.	71	May 8	Gosport	Coronary occlusion, arteriosclerosis.
Koons, Monroe T. (R)	91	May 14	Mulberry	Chronic myocarditis.
Filiatreau, R. N. (M)	67	May 16	Elwood	Diabetes mellitus, pulmonary tuberculosis.
Rynerson, Benj.	82	May 18	Prairieton	Chronic nephritis.
Logan, Henry V.	67	May 22	Rushville	Myocarditis.
Grayston, Boston H. B.	90	June 19	Huntington	Myocarditis, pulmonary edema.
Griffith, George G. (M)	51	July 3	Spurgeon	Cerebral hemorrhage.
Clymer, Russell S.	38	July 15	Andrews	Auto wreck.
Maris, John I. (M)	60	July 15	Paoli	Coronary occlusion, heat and fatigue.
Seipel, Herman O. (M)	54	July 19	Valparaiso	Coronary embolism.
Harding, George	81	July 25	Warsaw	Coronary occlusion, arteriosclerosis.
Green, Frank H. (M)	64	July 30	Rushville	Carcinoma of liver.
Yott, Chas. B. (M)	35	Aug. 3	Indianapolis	Morphine poisoning.
Toliver, John A.	87	Aug. 8	French Lick	Intracranial hemorrhage, arteriosclerosis.
Johnston, Wm. R. (M)	73	Aug. 8	Charlottesville	Coronary heart disease.
Peck, Edgar A.	82	Aug. 10	Valparaiso	Senile prostatitis.
Freeman, Albert E.	59	Aug. 11	Greentown	Purpura hemorrhagica.
Atkinson, James M. (H)	77	Aug. 12	Eaton	Coronary disease.
Welborn, Joseph E. (M)	34	Aug. 19	Evansville	Acute cardiac dilatation.
Knapp, Bleeker J. (M)	63	Aug. 20	Evansville	Chronic nephritis, uremia.
Misener, Walter L. (M)	62	Aug. 29	Richmond	Myocarditis.
Boyer, James M.	74	Aug. —	Indianapolis	Heat stroke.

Name	Age	Date	Place	Cause of Death
Trueblood, J. W.	89	Sept. 7	Monroe City	Chronic nephritis, uremia.
Bolling, Louis A.	73	Sept. 10	Otterbein	Coronary disease.
Anglin, George W. (M)	65	Sept. 15	Warsaw	Drowning, suicide.
Armstrong, Louis W. (M)	64	Sept. 19	Danville	Angina pectoris.
Hobbs, Guy F.	55	Sept. 21	Indianapolis	Coronary sclerosis and thrombosis.
Whippy, George A. (M)	70	Sept. 23	Goshen	Coronary occlusion.
McKain, Maurice C. (M)	48	Sept. 25	Columbus	Auto wreck.
Anthony, Elisha G. (M)	72	Sept. 28	Indianapolis	Coronary occlusion, mitral lesion.
Beckett, George T.	68	Sept. 28	Arlington	Coronary thrombosis.
Foss, Samuel S. (M)	76	Oct. 5	Jeffersonville	Undetermined.
Brown, Leonard W. (M)	64	Oct. 5	Indianapolis	Coronary thrombosis, nephritis.
Boots, Edwin B. (M)	40	Oct. 7	W. Terre Haute	Revolver shot, suicide.
Davidson, Edward C. (M)	73	Oct. 7	Lafayette	General paresis, chronic myocarditis.
Fullinwider, C. H.	86	Oct. 12	Mt. Vernon	Senile myocardial degeneration.
Spurgeon, Wm. A. (H)	88	Oct. 22	Muncie	Coronary thrombosis.
Emme, John C.	50	Oct. 25	Harlan	Cardiovascular-renal disease.
Higgins, Jesse B.	62	Oct. 27	Indianapolis	Coronary disease.
Denny, George E. (M)	70	Oct. 27	Madison	Angina pectoris.
Kithcart, Nathan I. (R)	89	Oct. 29	Columbia City	Myocarditis, nephritis, prostatitis, arteriosclerosis.
Mayfield, Charles E. (M)	59	Nov. 4	Wanatah	Prostatic carcinoma.
Saunders, J. E.	70	Nov. 10	Burket	Chronic nephritis, uremia, carcinoma right breast, chronic myocarditis.
Wade, Frank C. (M)	57	Nov. 14	Howe	Arteriosclerosis, secondary hypertension.
Burgin, James M.	33	Nov. 17	Bedford	Suicide by poison.
Long, Alfred G. (M)	54	Nov. 20	Indianapolis	Suicide by carbon monoxide.
Cook, Andrew J.	81	Nov. 20	Flora	Overstrain, chronic myocarditis, acute indigestion.
Duffin, Chas. E.	60	Nov. 21	Richmond	Psychosis, organic brain disease, valvular heart disease.
Schillinger, Richard (M)	69	Nov. 21	Richmond	Cerebral hemorrhage.
Hays, Thos. A. (H)	78	Nov. 27	Burns City	Endocarditis, senility.
Conway, Robert E. (M)	51	Nov. 30	Indianapolis	Coronary occlusion.
Talmage, John B.	74	Dec. 4	Lawrenceburg	Coronary disease, angina pectoris.
Kaufman, Anna G.	82	Dec. 8	Goshen	Chronic myocarditis.
McBride, Wm. A. (M)	64	Dec. 14	Indianapolis	Coronary disease.
Ewing, U. B. G. (R)	77	Dec. 17	Franklin	Chronic myocarditis, arteriosclerosis, senile dementia.
Beaman, Zera M. (M)	60	Dec. 20	N. Manchester	Coronary occlusion.
Pyke, Furman L. (M)	52	Dec. 24	Lafayette	Atypical anterior poliomyelitis, influenza.

News Notes

Dr. Lintner E. Clark of Indianapolis and Miss Eleanor Jane Milward of Indianapolis were married December twenty-eighth.

Dr. Byron Kilgore, Jr., of Summitville, has joined the staff of the Miller Clinic in Hobart, according to newspaper announcement. He replaces Dr. W. R. Storer, who has been called to service.

Dr. M. B. Stewart, of Logansport, is serving his twelfth term as coroner for Cass County.

Dr. Floyd T. Romberger, Jr., of South Bend, and Miss Margaret Hall Carter, of Evansville, were married December twenty-second.

Dr. E. S. Ferris, of New Castle, has been made an honorary member of the Henry County Medical Society.

Dr. Harry P. Ross, of Richmond, has been made president of the Indiana Association of College and University Physicians and Health Directors.

New x-ray equipment, at a cost of about $3,500, has been installed in the Indianapolis City hospital, $1,000 of this amount having been contributed by the Woman's Council of that city.

Dr. and Mrs. John Morr of Albion celebrated their golden wedding anniversary New Year's Day. Dr. Morr is actively engaged in practice.

Fifth National Social Hygiene Day will be observed February 5, 1941.

Miss Florence Whitmore, of Iowa City, Iowa, and Dr. Joseph A. Teegarden, Jr., son of Dr. and Mrs. J. A. Teegarden, of East Chicago, were married December twenty-eighth in Iowa City. They will reside in East Chicago.

Dr. Homer L. Burke of Lapaz has taken the office of Dr. John Thompson of Bremen who has been called for army service.

Dr. Martha Moore has moved from Evansville, where she was associated with the Evansville State Hospital, to Butlerville, where she is assistant physician at the Muscatatuck Colony.

The International College of Surgeons will hold its fifth international assembly in Mexico City, August 10-14, 1941, in response to the invitation of the Mexican Government. Surgeons in the United States desiring information about the presentation of papers or scientific exhibits are requested to query Dr. Desiderio Roman, Chairman of the Scientific Committee, 250 South 17th Street, Philadelphia. Those seeking travel information are advised to communicate with Dr. Max Thorek, International Executive Secretary, 850 West Irving Park Boulevard, Chicago.

Dr. C. P. Rhoads, Director of the Memorial Hospital of New York, and Dr. E. A. Doisy, Director of the Biochemistry Department, School of Medicine, St. Louis University, have been named as members of the National Advisory Cancer Council, and Dr. Ludwig Hektoen, of Chicago, has been reappointed as Executive Director of the Council, according to the announcement made by Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service, who also serves as ex-officio Chairman of the Cancer Council.

Dr. Fred H. Albee, International President of the International College of Surgeons, has been designated by Kappa Sigma, Greek letter college fraternity, as "The Man of the Year 1940." The award is in recognition of Dr. Albee's service for the past 22 years as chairman of the New Jersey Rehabilitation Commission, which he helped establish, and for his achievements in and numerous original articles on orthopedic surgery, especially bone grafting. A bronze plaque was presented to Dr. Albee at the fraternity's annual founder's day dinner, December 10, in Washington, D. C., by United States Senator from Vermont, Warren R. Austin, last year's recipient.

The South Bend Clinic observed its twenty-fifth anniversary on January 1, 1941. To commemorate the occasion, a Silver Jubilee banquet was held in the Bronzewood Room of the Hotel LaSalle on the evening of January 8, 1941. Not only did the banquet commemorate the twenty-fifth anniversary of the Clinic but it was also intended in a large measure to fete Dr. Walter H. Baker and Dr. Fred R. Clapp, two of the original partners of the Clinic group. The Clinic's early history was rather hectic in view of the fact that its founding and the opening of its doors for service occurred just prior to U. S. participation in the first World War and during 1917 and 1918 only two members of the original group were left to carry on the affairs of the Clinic as all the rest of them had joined the colors, but with the cessation of hostilities, those who were in the service returned to the Clinic and continued their practices.

In recognition of his services to the Lake County Medical Society, Dr. E. M. Shanklin, of Hammond, has been made an honorary member of the Lake County Medical Society, Inc. The motion proposing honorary membership for Dr. Shanklin was read by Dr. Harry Brandman, and was (in part) as follows: "As an outstanding member of the Society, he has stood for the best that there is in American medicine . . . he has distinguished himself as a member of the Board of Medical Registration and Examination for the state, as president of the Indiana State Medical Association, as president of the Lake County Medical Society, long time secretary of the Society, as editor of The Journal of the Indiana State Medical Association and in other offices and functions too numerous to mention . . . his record is one of pure lustre, concrete achievement and effective service. . . . He possesses the affection and regard of all members and colleagues. He has enabled discouraged individuals to take heart and stay on at their work. He has seen and handled violations of ethics in a most tactful, wise, and prompt manner. He has been a source of inspiration especially to younger men."

OCCUPATIONAL THERAPY AIDES AND RECREATIONAL AIDES NEEDED BY FEDERAL GOVERNMENT

The United States Civil Service Commission has announced that it is accepting applications for the positions described below. Applications must be on file with the Commission's Washington office not later than February 10.

Occupational therapy aide and junior occupational therapy aide, salaries—$1,800 and $1,620 a

year, respectively. Optional branches for the full grade position are: (1) Arts and crafts, (2) trades and industries, and (3) gardening. The duties include administering or assisting in the occupational treatment of patients.

Recreational aide, salary—$1,800 a year. The duties include the planning and direction of social and recreational activities of patients.

Applicants must have had 14 units of high-school study; otherwise they must pass a written general test. Except where this test is necessary, competitors will not be required to take a written examination. All applicants will be rated on their education and experience as shown in their application and by corroborative evidence. Applicants must not have passed their forty-fifth birthday. This age limit does not apply to veterans granted veteran preference, up to retirement age.

Further information and application forms may be obtained from the Secretary of the Board of U. S. Civil Service Examiners at any first- or second-class post office, or from the U. S. Civil Service Commission, Washington, D. C.

PUBLIC HEALTH POSITIONS TO BE FILLED THROUGH CIVIL SERVICE TESTS

The United States Civil Service Commission has announced examinations to fill the positions of psychiatric nurse, guard-attendant, and medical technical assistant in the Division of Mental Hygiene of the Public Health Service. Appointments to the positions of medical guard-attendant and medical technical assistant will also be made in the Department of Justice.

The duties of the psychiatric nurse position, which pays $3,200 a year, include the study of nursing practices in public mental hospitals with a view toward recommendations for improvement; they also involve giving technical advice to directors of nursing relative to psychatric procedure, and conducting public discussions on psychiatric nursing. Applicants must be registered graduate nurses with certain appropriate experience in a hospital for mental patients. They will not be required to take a written test.

The medical guard-attendant positions involve the care, treatment, and custody of Federal prisoners. The salary is $1,620 a year. Applicants must either be registered graduate nurses, have had experience as attendant at Federal penal or correctional institutions, or have had active service in the Army or Navy Medical Corps.

For medical technical assistant positions, paying $2,000 a year, applicants must meet the requirements for guard-attendant, and in addition must have had 1 year of training or experience in either clinical laboratory technique, pharmacy, or x-ray laboratory technique.

Applications must be filed at the Commission's Washington office not later than February 17 and February 20, 1941, the extra time being allowed for those sent from Colorado and States westward. Salaries are subject to a 3½ per cent retirement deduction.

Further information and application forms may be obtained from the Secretary of the Board of U. S. Civil Service Examiners at any first- or second-class post office, or from the U. S. Civil Service Commission, Washington, D. C.

EXAMINATIONS FOR APPOINTMENTS IN THE MEDICAL CORPS OF THE U. S. NAVY

The Surgeon General of the Navy, Rear Admiral Ross T. McIntire, (MC), U.S.N., announced the next examination for appointments as commissioned officers in the Medical Department of the Navy will be held at all of the larger naval hospitals and at the Naval Medical Center, Washington, D.C., on May 12 to 15, inclusive, 1941. Applicants for appointment as Assistant Surgeon, effective approximately two months from date of examinations, may now request authorization to appear for examination. Requests for such authorization should reach this bureau prior to April 21, 1941.

Applicants for appointment as Assistant Surgeon are required to be citizens of the United States between the ages of 21 and 31, graduates of Class "A" medical schools, have had at least one year of intern training in a hospital accredited for intern training by the Council on Medical Education and Hospitals of the American Medical Association, and to meet the physical and other requirements for appointment.

The Medical Corps of the Navy is being increased in strength proportionate with the expanding Navy and U. S. Marine Corps. Service for medical officers is active professionally and attractive in assignments at sea, on shore duty, and on foreign shore stations. In the normal rotation of assignments every practicable consideration is given the officer's preference for the type of duty he desires. The Naval Medical School at the Naval Medical Center, Washington, D.C., offers a course of post-graduate instruction and instruction in those branches of medicine which apply particularly to naval service. Under normal conditions newly appointed officers are assigned to this course upon their entry into the service or during their first few years of naval service.

Naval medical officers are encouraged to develop a specialty after they have completed their first cruise at sea. Shortly before completion of his sea duty, the Navy doctor may request special training in the Medical Department specialty in which he is interested. Such requests are acted upon by a special board in the Bureau of Medicine and Surgery and, if approved, the Navy doctor is sent to a hospital for training and experience in that specialty for one year. Upon completion of this training, he is assigned to post-graduate in-

struction at one of the many medical centers in the United States for a period up to one year after which, in-so-far as is practicable, he is retained in that type of duty. Some of the specialties in which qualifications may be obtained are: Surgery, Medicine; Otolaryngology; Laboratory; X-ray; Pathology; Public Health; Psychiatry; Deep-Sea Diving; Aviation Medicine (Flight Surgery); Gas Warfare, and Tropical Medicine. Several officers have been trained in research particularly applying to problems arising in submarine and aviation activities.

The naval service affords excellent opportunities for professional advancement. Medical officers receive the same pay and allowances as other officers of the Navy in corresponding ranks and the equivalent amount of service.

A circular of information for applicants for appointment as medical officers of the Navy, containing full information regarding physical requirements, professional examinations, rates of pay, and promotion and retirement data may be obtained by addressing the Bureau of Medicine and Surgery, Navy Department, Washington, D.C.

NEW FILM TO BE SPONSORED BY STATE BOARD OF HEALTH

The State Board of Health announces that it will sponsor the showing of the film, "A New Day," in the theaters throughout the state during the ensuing weeks. This film is a one-reel motion picture dealing with pneumonia control, and was produced in Hollywood under the joint sponsorship of the United States Public Health Service and the Metropolitan Life Insurance Company. It has been approved by the American Medical Association, and is brought to Indiana after preview and approval of the Pneumonia Committee of the Indiana State Medical Association and the State Board of Health. It is felt that its value lies in its accurate portrayal of the present-day knowledge regarding pneumonia treatment and the importance of seeking early medical attention. According to the critics, it has performed the rare feat of combining sound scientific information with human interest, and has avoided the dangerous tendency to produce hypochondriacs by emphasizing the value of prompt medical care.

This announcement from the State Board of Health is made before the showing of the film in order that the physicians throughout the state will be informed of its sponsorship and authenticity.

It would also seem timely again to point out that anti-pneumococcic serum is available at the following distribution centers throughout the state for patients unable to pay for the serum:

Bartholomew Co. Hosp., Columbus, Indiana
City Board of Health, Evansville, Indiana
Methodist Hospital, Fort Wayne, Indiana
Methodist Hospital, Gary, Indiana
St. Elizabeth Lafayette, Indiana
Ball Memorial Hospital Muncie, Indiana
St. Edward's Hospital New Albany, Indiana
Henry County Hospital New Castle, Indiana
Dukes Miami Hospital Peru, Indiana
Epworth Hospital South Bend, Indiana
Union Hospital Terre Haute, Indiana
Daviess County Hospital Washington, Indiana

Although chemotherapy has replaced serum therapy in the treatment of pneumonia to a large extent, serum therapy continues to have an important field of usefulness. Sputum for typing should be obtained in all cases before chemotherapy is started since there is evidence that the drug may interfere with subsequent typing.

It is interesting and gratifying to note the reduction in pneumonia mortality in Indiana during the past three years. From 1930 through 1939 there was a total of 28,707 pneumonia deaths. This would be a ten-year average of 2,870 pneumonia deaths per year. However, in 1938 and 1939 there were 2,372 and 2,452 pneumonia deaths, respectively. The figures for 1940 have not been completed to date, but are estimated to be between 2,100 and 2,200.

INDIANA UNIVERSITY NEWS NOTES

A total of 1,740 examinations conducted among the 1,083 children at the Child Health Clinic established a year ago in the Indiana University Medical Center disclosed more than 2,000 cases of incipient ailments, according to a report that the joint supervising committee of the clinic has disclosed.

Operating under a cooperative plan set up by the Children's Bureau of the Indianapolis Orphans' Home, the Marion County Public Welfare Department, and the Indiana University Medical Center through James Whitcomb Riley Hospital for Children, the clinic uncovered more than 750 cases which justified follow-up care in other clinics of the medical center and City Hospital.

Evaluating the first-year experience of the clinic the committee reported that "the variety and number of ailments speak for themselves and show the need of medical attention."

Children examined were those who had been placed under the care of the Children's Bureau and the Welfare Department. The bureau formerly had allocated one day a week over a period of a year. In November, 1939, the two agencies combined with the medical center to establish a clinic as a means of increasing efficiency, lowering costs, and keeping more systematic records of the types of ailments existing among underprivileged children.

Neglect of teeth was one of the outstanding disclosures of the clinic, the report set out. Cavities,

lack of cleanliness and other abnormal dental conditions were found among 294 children. Skin diseases of various types totaled 117 and 16 children were found to have rickets. Thirty-five needed further eye examinations. Hernia was discovered among 28 children, abnormal ear conditions were diagnosed in 117 cases, but only four of the 1,083 children showed positive syphilis tests.

"Since diagnosis and referral to other clinics is the chief function of the clinic, the number of referrals for treatment, and the efficiency with which these referrals are carried out are of great importance in evaluating our medical service," the report said.

"During the period from November, 1939, to November, 1940, there were 750 referrals to other clinics. Of this number 500 were completed and 250 were not completed for one reason or another. These findings seem to indicate that a majority of the referrals have been carried through. Most of those which were not completed are pending and probably will be completed within the near future."

Children on the whole were cooperative with clinic attendants, and foster parents of children sent to the clinic seemed well pleased with the program, the report stated.

"The clinic has been a demonstration to them of the value of preventive medicine," the committee said. "Just how much they have carried the plan over into practice for themselves or for their children is hard to determine, but at least they have been introduced to the idea."

A series of postgraduate courses covering practically all fields of medicine has been announced by the Indiana University School of Medicine. The series, announced by Dr. W. D. Gatch, dean of the school, and the postgraduate education committee, started about the middle of January with a weekly one-hour course for physicians interested in military medicine. They were conducted as approved by the Surgeon-General of the United States Army.

A two-weeks course in obstetrics, one of a series of three scheduled for this spring, was held from January 13 to 25. A second will be held from April 14 to 26, and a third from July 7 to 19.

The annual intensive postgraduate course, covering most of the phases of medicine and surgery, will be held the week of April 28 to May 2. The intensive course usually is attended by from 300 to 500 physicians from all sections of the state.

Physicians interested in "brushing up" on the care and treatment of children will have their opportunity in afternoon and nightly courses in pediatrics at the school March 5, 12, 19 and 26. They will have the benefit of research and daily experiences encountered by physicians treating the thousands of children who have passed through James Whitcomb Riley Hospital for Children.

Ear, nose and throat specialists from distant states are expected to attend a two-weeks course in otolaryngology from April 13 to April 26. Limited to men recognized as otolaryngologists by the secretary of their local medical societies or by the American Medical Association, the course each year brings specialists from the farthest points of the continent.

The final course of the year will be in heart disease, scheduled for June 23 to June 27.

The Indiana Advisory Health Council, a governor's commission set up to coordinate public health programs several years ago, has initiated a program designed to perfect various measures being considered for introduction during the meeting of the Legislature. The Council, composed of representatives of the various state agencies, governmental departments and state associations concerned with public health, will work through a sub-committee in consulting with the legislators on the workability and advisability of bills being prepared for consideration. Dr. Albert M. Mitchell of Terre Haute, president of the Indiana State Medical Association, was named chairman of the sub-committee by Dr. W. D. Gatch, dean of the Indiana University Medical School and chairman of the Council. Dr. Gatch named two other physicians and three laymen to the committee. The physicians are Dr. Norman M. Beatty, chairman of the state association's legislative committee, and Dr. H. J. Norton of Columbus, chairman of the advisory committee of the Indiana Mental Hygiene Society. Laymen on the committee are Murray A. Auerbach, executive secretary of the Indiana Tuberculosis Association; Mrs. Perry W. Lesh, chairman of the Indiana State Committee on Child Welfare Legislation, and Mrs. James L. Murray, chairman of the Indiana Parent-Teacher Association.

At a general meeting of the Council at the James Whitcomb Riley Hospital, several proposed bills designed to increase control of tuberculosis, syphillis, mental delinquency, juvenile delinquency, admission of insane patients to hospitals, sterilization, and other health problems were discussed. While most of the proposed bills were approved in principle, representatives of the various groups pointed out weaknesses which should be corrected. Included in representation on the Council are the Indiana Tuberculosis Association, the Indiana University School of Medicine, the Indiana State Medical Association, the Indiana State Dental Association, the Indiana Parent-Teacher Association, the state department of the American Legion, the American Red Cross, the Indiana State Nurses' Association, the Indianapolis Manufacturers' Association, and the state departments of public health, safety, public instruction and public welfare.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION THE COUNCIL

The annual midwinter meeting of the Council of the Indiana State Medical Association was called to order by Dr. Floyd T. Romberger, of Lafayette, chairman, at 10:10 a. m., Sunday, January 12, 1941, in private dining room No. 1 of the Columbia Club, Indianapolis. Roll call showed the following present:

Members of the Council:

First District ..... I. C. Barclay, Evansville
Second District ..... H. C. Wadsworth, Washington
Third District ..... W. H. Garner, New Albany
Fourth District ..... J. C. Elliott, Guilford
Fifth District ..... Not Represented
Sixth District ..... Samuel Kennedy, Shelbyville
Seventh District ..... C. J. Clark, Indianapolis
Eighth District ..... E. H. Clauser, Muncie
Ninth District ..... Floyd T. Romberger, Lafayette
Tenth District ..... James M. White, Gary
Eleventh District ..... Ira Perry, North Manchester
Twelfth District ..... H. L. Murdock, Fort Wayne
Thirteenth District ..... Alfred Ellison, South Bend

Officers:

Karl R. Ruddell, Indianapolis, president 1940
A. M. Mitchell, Terre Haute, president 1941
M. A. Austin, Anderson, president-elect
A. F. Weyerbacher, Indianapolis, treasurer
E. M. Shanklin, Hammond, editor of THE JOURNAL
Cleon A. Nafe, Indianapolis, chairman, Executive Committee
T. A. Hendricks, executive secretary.

On motion of Dr. Clark, seconded by Dr. White, the reading of the minutes of the October, 1940, meetings of the Council, held at French Lick, was dispensed with as these minutes were approved as printed in the December JOURNAL.

PERRY COUNTY CASE

The secretary announced that a physician in Perry county had asked to appeal to the Council against the findings of his county medical society in suspending him from membership. Following discussion, Dr. Perry made the motion that the executive secretary inform both the physician making the appeal and the county medical society that the subject was brought before the Council and discussed but no action was taken because of lack of complete evidence on both sides. The executive secretary is to secure this evidence and forward a mimeographed copy of it to each councilor. Motion duly seconded and carried. The Council agreed to allow the parties concerned thirty days in which to compile and submit the evidence in the case, at the end of which time a date is to be set for a hearing before the Council.

REPORTS OF COUNCILORS BY DISTRICTS

Short, informal reports by the councilors showed that all districts are in good condition. In addition, the following remarks were made:

Dr. E. H. Clauser, 8th District—"I have nothing real to report except to state that this is my first attendance at a meeting of the Council and that I have been appointed to fill the unexpired term of Doctor Austin. I have not been elected. If there is anything of importance to report from the Eighth District I am sure that Doctor Austin will do that as I have been notified only a few weeks ago. Our last meeting was held in Elwood last summer. The next meeting will be held on June 11 in Winchester. At the Elwood meeting the unanimous opinion was expressed that Doctor Austin was worthy of being elected to the presidency of the state association and at French Lick he was so elected. I further wish to express my thought that I regard this appointment as an honor and realize that it entails considerable responsibility and that I shall do my best to familiarize myself with the duties incurred and will act accordingly."

(The chairman, upon behalf of the Council, welcomed Dr. Clauser as a member of the Council.)

Dr. Ira Perry, 11th District—"I had Dr. Brubaker, secretary of our district, go over our attendance list for the last fourteen meetings, that is for the last seven years, and we had an average registration at the afternoon meetings of 82, and at the night meetings our average attendance was 84. I think that's pretty good."

District meetings were reported scheduled as follows for 1941:

First District ..... ——— May 8, 1941
Second District ..... Vincennes, May 27, 1941
Third District ..... New Albany, ———, 1941
Fourth District ..... Batesville, May 21, 1941
Fifth District ..... Terre Haute, May 2, 1941
Sixth District ..... New Castle, May 15, 1941
Seventh District ..... Not Set
Eighth District ..... Winchester, June 11, 1941
Ninth District ..... Frankfort, May 22, 1941
Tenth District ..... Gary, May 15, 1941
Eleventh District ..... Kokomo, May 15, 1941
Twelfth District ..... Fort Wayne, April —, 1941
Thirteenth District ..... South Bend, November —, 1941

Attention was called to the time of the American Medical Association meeting in Cleveland, June 2 to 6, 1941, and to the Indiana University postgraduate meeting, April 28 to May 2, 1941, and to the fact that district meetings should not conflict with each other or with the A.M.A. meeting or the University postgraduate course.

REPORTS OF OFFICERS

Dr. Karl R. Ruddell, president 1940—"I want to express my appreciation for the cooperation of the Council during my term of office. I enjoyed working with you very much and I hope I can continue to work along in the same way."

Dr. A. M. Mitchell, president 1941, spoke of the bill which the Indiana Tuberculosis Association is to introduce. This bill has to do with the examination of school teachers.

Dr. E. M. Shanklin, editor of THE JOURNAL, reported on the activities of his office and on plans for THE JOURNAL for 1941. The matter of carrying abstracts and bibliographies in THE JOURNAL was referred by the Council to the Editorial Board.

Dr. A. F. Weyerbacher, treasurer, presented the following report which was compiled by George S. Olive and Company, certified public accountants:

TREASURER'S REPORT

January 8, 1941

The Council,
Indiana State Medical Association,
Indianapolis, Ind.
Gentlemen:

We have examined the cash records of your association for the year ended December 31, 1940. This examination was undertaken for the purpose of determining and verifying the cash transactions for the year, and of verifying the assets at the close of the year, as reflected by the records.

The results of our examination are presented in this report, which includes: (1) text of comments; (2) statement of assets of all funds at December 31, 1940; (3) statements of receipts and disbursements of all funds, year ended December 31, 1940.

General Comments

In exhibit A is presented an analysis of the increase in assets of the association for the year ended December 31, 1940, showing in summary form the sources from which this increase was derived.

Details of the assets of all funds are presented in exhibit B. We examined securities of the association and confirmed bank balances with the depositories.

Details of the cash receipts and disbursements of the general fund, of The Journal of the Indiana State Medical Association, and of the medical defense fund are presented in exhibits C, D, and E.

Yours very truly,
GEO. S. OLIVE & CO.,
Certified Public Accountants.

EXHIBIT A

Indiana State Medical Association

ANALYSIS OF INCREASE IN ASSETS, ALL FUNDS
YEAR ENDED DECEMBER 31, 1940

Total Assets, December 31, 1940—Exhibit B			**$57,883.21**
Total Assets, December 31, 1939			**51,349.24**
Net Increase			**6,533.97**
Arising from the following sources:			
Excess of operating cash receipts over operating cash disbursements — general fund, year ending December 31, 1940:			
Receipts—Exhibit C	$37,867.75		
Disbursements—Exhibit C	29,541.30		
Excess of operating receipts		$ 8,326.45	
Excess of cash receipts over cash disbursements—medical defense fund, year ended December 31, 1940		1,271.20	
Excess of cash receipts over cash disbursements—The Journal of the Indiana State Medical Association, year ended December 31, 1940		6.32	
		9,603.97	
Less:			
Reduction of investment:			
Fort Wayne, Indiana, School Improvement bonds—matured	3,000.00		
Beachton Court Apartments bonds	60.00		
Rokeby Apartment Hotel bonds	10.00		
		3,070.00	
Total net increase			$ 6,533.97

EXHIBIT B

STATEMENT OF ASSETS, ALL FUNDS, AT DECEMBER 31, 1940

General Fund:		
Cash on deposit—Exhibit C	$14,161.43	
Petty cash fund	200.00	
Investments:		
Indianapolis, Indiana, City Hospital bonds	5,000.00	
Marion County, Indiana, Flood Prevention bonds	3,000.00	
United States Treasury bonds	10,000.00	
Beachton Court Apartments, Chicago, bonds evidenced by certificate of deposit	3,620.00	
Rokeby Apartment Hotel, Chicago, bond evidenced by certificate of deposit	945.00	
Total general fund assets		$36,926.43
The Journal of the Indiana State Medical Association:		
Cash on deposit—Exhibit D		3,303.64
Medical Defense Fund:		
Cash on deposit—Exhibit E	7,653.14	
Investments:		
Marion County, Indiana, Flood Prevention bonds	2,000.00	
United States Treasury bonds	8,000.00	
Total medical defense fund assets		17,653.14
Total Assets—All Funds—Exhibit A		**$57,883.21**

EXHIBIT C

COMPARATIVE STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEARS ENDED DECEMBER 31, 1940, AND DECEMBER 31, 1939

GENERAL FUND

	Year Ended Dec. 31, 1940	*Dec. 31, 1939*	*Increase —Decrease*
CASH BALANCE AT BEGINNING OF YEAR	$ 5,834.98	$ 4,191.90	$ 1,643.08
Receipts:			
Membership dues	31,184.00	21,471.00	9,713.00
Income from exhibits	2,865.00	4,022.12	—1,157.12
Rokeby Liquidation Trust Distribution	10.00	.....	10.00
Beachton Court Liquidation Trust Distribution	60.00	120.00	—60.00
Fort Wayne, Indiana, School Improvement bonds—matured	3,000.00	.....	3,000.00
Interest income:			
United States Treasury bonds	286.25	286.25	.....
Indianapolis, Indiana, City Hospital bonds	200.00	200.00	.....
Marion County, Indiana, Flood Prevention bonds	127.50	127.50	.....
Fort Wayne, Indiana, School Improvement bonds	135.00	135.00	.....
Total receipts	37,867.75	26,361.87	11,505.88
BEGINNING BALANCE PLUS CASH RECEIPTS	43,702.73	30,553.77	13,148.96
Disbursements:			
Transfers of applicable portion of dues to The Journal of the Indiana State Medical Association—Exhibit D	6,376.00	6,246.00	130.00
Medical Defense fund—Exhibit E	2,328.00	2,283.75	44.25
Headquarters office expense	10,427.15	10,024.53	402.62
Publicity committee	476.44	729.55	—253.11
Public policy	510.55	906.92	—396.37
Council	3,260.08	208.04	3,052.04
Officers	655.81	530.98	124.83
Rent	500.00	.....	500.00
Annual session	2,976.31	2,846.57	129.74
Miscellaneous committees	1,779.38	692.16	1,087.22
Postgraduate study	192.70	191.90	.80
Federal O.A.B. tax	58.88	58.39	.49
Total disbursements	29,541.30	24,718.79	4,822.51
Cash balance at end of year	**$14,161.43** *(Exhibit B)*	**$ 5,834.98**	**$ 8,326.45**

EXHIBIT D

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1940

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

BALANCE, JANUARY 1, 1940		$ 3,297.32
Receipts:		
Subscriptions—members—Exhibit C	$ 6,376.00	
Subscriptions—non-members	95.00	
Advertising	10,721.71	
Collections on accounts receivable	288.60	
Single copy sales	19.50	
Electrotypes	56.27	
Sale of old metal	11.50	
Total receipts		17,568.58
		20,865.90
Disbursements:		
Editorial and management salaries	8,034.29	
Printing	7,129.44	
Postage	667.78	
Electrotypes	537.61	
Office rent and light	241.37	
Office supplies	332.98	
Press clippings	110.76	
Federal O.A.B. tax	55.59	
Extra help—reporting	292.37	
Advertising commissions	98.00	
Copyright fees	24.72	
Surety bond	20.00	
Reprints	11.75	
Advertising refund	5.00	
Express	.60	
Total disbursements		17,562.26
Balance, December 31, 1940—Exhibit B		**$ 3,303.64**

EXHIBIT E

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1940

MEDICAL DEFENSE FUND

BALANCE, JANUARY 1, 1940		$ 6,381.94
Receipts:		
Transfer of applicable portion of dues from the general fund—Exhibit C	$ 2,328.00	
Fort Wayne, Indiana, School Improvement bonds—matured	2,000.00	
Indianapolis, Indiana, City Hospital bond—matured	1,000.00	
Interest income:		
United States Treasury bonds	155.00	
Indianapolis, Indiana, City Hospital bond	47.50	
Marion County, Indiana, Flood Prevention bonds	85.00	
Fort Wayne, Indiana, School Improvement bonds	90.00	
Total receipts		5,705.50
		12,087.44
Disbursements:		
Attorney's retainer fee	600.00	
Malpractice fees	797.50	
Treasurers bond	15.00	
Printing	21.45	
Bank collection charge	.35	
U. S. Treasury "Baby Bonds," $4,000 par value	3,000.00	
Total disbursements		4,434.30
Balance, December 31, 1940—Exhibit B		**$ 7,653.14**

Dr. C. A. Nafe, chairman of the Executive Committee, discussed some of the problems which had come before the committee this past year. Dr. Ellison and Mr. Stump discussed several legal problems.

UNFINISHED BUSINESS

1. *Dues of physicians in military service.* Upon the motion of Dr. Clark, seconded by Dr. White, the Council ruled that the dues of physicians in military service should be paid out of the reserve funds of the association.

2. *Exact time when a physician in military service is eligible to complimentary membership.* Motion was made by Dr. Clark that the dues of a physician who has been placed in active duty should be refunded on a pro-rated monthly basis, dating from the time he enters active duty. Motion duly seconded and carried.

3. *Payment of traveling expenses of editor of* THE JOURNAL. Dr. Austin moved that the actual traveling expenses incurred by the editor of THE JOURNAL in making trips to the Indianapolis office be paid by THE JOURNAL. Motion seconded, and carried.

SUGGESTIONS AND PROPOSALS FOR 1941 ANNUAL SESSION AT INDIANAPOLIS

1. *Convention facilities for 1941.* Report prepared by Dr. Charles F. Thompson, general chairman of convention arrangements committee, was presented to the Council. Dr. Clark moved that the general arrangements as to place for various meetings, etc., be turned over to Dr. Thompson. Motion seconded by Dr. Ellison, and carried.

2. The following general outline for the program was approved:

MONDAY, SEPTEMBER 22, 1941

Morning and Afternoon—State health officers' meeting.

TUESDAY, SEPTEMBER 23, 1941

Morning— Registration, Riley Room, Claypool Hotel.
Golf, trap shooting and other sports.
Afternoon— Council meeting, noon luncheon.
Meeting of House of Delegates, Assembly Room, Claypool Hotel.
Golf continued.
Evening— Smoker and stag party.
Dinner for women physicians.

WEDNESDAY, SEPTEMBER 24, 1941

Morning— General scientific meeting, Indiana Ballroom.
Noon— Class and fraternity get-togethers and luncheons, Claypool, Lincoln Hotels, Columbia and Athletic clubs.
Afternoon— Section meetings, Indiana Ballroom, Claypool Hotel.
Evening— Annual banquet, Scottish Rite Cathedral.

THURSDAY, SEPTEMBER 25, 1941

Morning— Breakfast and final meetings of House of Delegates and Council, Claypool Hotel.
Final general scientific meeting, Indiana Ballroom.
Adjournment at noon.

3. *Public meeting.* Dr. Wadsworth moved that no public meeting be held during the 1941 annual session. Motion seconded by Dr. Austin, and carried.

4. *Budget for 1941 annual session.* The estimated budget for the local committee's expenses of $2,000.00, submitted by Dr. Thompson, was approved upon the motion of Dr. Clark, seconded by Dr. Barclay.

5. *Scientific exhibit.* Dr. White moved that the association have a scientific exhibit at the Indianapolis meeting. Motion seconded by Dr. Ellison, and carried.

6. *Employment of professional medical stenog-*

LIBRARY

raphers. Dr. Wadsworth made the motion that "professional medical stenographers be employed if they are needed." The cost of the electric recording machine as used at French Lick is prohibitive. Dr. Wadsworth's motion was duly seconded, and carried.

MEMBERSHIP PROBLEMS

1. *Membership report by districts.*

MEMBERSHIP REPORT

December 31, 1940

County Society	M Ds in * County	Members Dec. 31, 1940	Members Dec. 31, 1939	Loss — Gain	Eligible Non-Mems.	New Members	Removed and Retired	Deceased	Ineligible
First District									
Posey	20	12	11	1	3		3	2	1
Vanderburgh	182	140	133	7	28	12	13	3	5
Warrick	20	11	12	—1	5	1	4		
Spencer	23	15	13	2	5	3	3	1	1
Perry	15	12	11	1	2		1		
Gibson	31	28	27	1			3	1	1
Pike	13	10	11	—1	3			1	
Total	304	228	218	10	46	16	27	8	8
Second District									
Knox	59	39	38	1	11	1	6	3	3
Daviess-Martin	33	26	27	—1	7				
Sullivan	26	22	24	—2			5		1
Greene	24	20	17	3	4	4			
Owen	12	8	11	—3	3			1	
Monroe	38	36	33	3	2	2	1	1	
Total	192	151	150	1	27	7	12	5	4
Third District									
Lawrence	31	22	22		3	2	6		
Orange	18	14	14			3	2	3	
Crawford	9	2	2		7				
Washington	12	9	9		1		1		1
Scott	7	5	5				2		
Clark	23	13	15	—2	6	1	3	1	1
Floyd	38	33	34	—1	1		2		3
Harrison	10	8	7	1	2				
Dubois	24	20	18	2	4	1	1		
Total	172	126	126		24	7	17	4	5
Fourth District									
Brown	3				1				2
Bartholomew	39	28	26	2	5	1	4	1	3
Decatur	21	18	18		2	1	1		
Jackson	24	19	19		2		2		1
Jennings*	12	11	10	1		1	2	1	
Ripley	15	13	10	3	2	1			
Jefferson	21	18	18		1	1	2		
Switzerland	9	5	5		3				1
Dearborn-Ohio*	26	19	21	—2	1		1		5
Total	170	131	127	4	17	5	12	2	12
Fifth District									
Parke-Vermillion	40	22	24	—2	14	1	3		1
Putnam	22	16	15	1	5				1
Vigo	127	112	116	—4	7	3	4	2	5
Clay	18	17	18	—1	1				
Total	207	167	173	—6	27	4	7	2	7
Sixth District									
Hancock	22	18	19	—1	3		1	2	
Henry	44	38	31	7	1	3	2		4
Wayne-Union	79	61	59	2	7	2	4	2	6
Rush	22	17	17		2	1	1	3	1
Fayette-Franklin	24	19	21	—2	1		3		2
Shelby	30	20	18	2	7	1	3		
Total	221	173	165	8	21	7	14	7	13
Seventh District									
Hendricks	24	17	20	—3	4	1	1	1	2
Marion*	853	633	606	27	158	49	56	9	30
Morgan	32	18	19	—1	8	1	4	1	1
Johnson	22	16	17	—1	5			1	
Total	931	684	662	22	175	51	61	12	33
Eighth District									
Madison*	99	74	77	—3	15	1	6	2	3
DelawareBlkford*	102	79	77	2	16	5	4	3	4
Jay*	27	15	16	—1	12				
Randolph	27	24	24			1	4		
Total	255	192	194	—2	43	7	14	5	7
Ninth District									
Benton	17	13	13			1	1	1	2
Fountain-Warren*	26	22	24	—2	3	1	1		
Tippecanoe*	96	89	89		4	7	4	2	1
Montgomery*	42	28	29	—1	7		7		
Clinton	30	23	22	1	2	1	3	1	1
Tipton	17	12	12		3		2		
Boone	25	15	15		7	1	1	1	1
Hamilton	30	21	21		4		3		2
White*	11	4	2	2	7		1		
Total	294	227	227		37	11	23	5	7
Tenth District									
Lake	295	234	223	11	43	21	16		8
Porter	30	26	24	2	3		2	2	
Jasper-Newton	26	19	16	3	5		5		
Total	351	279	263	16	51	21	23	2	8
Eleventh District									
Carroll	18	15	13	2	1	1	3		
Cass	50	36	38	—2	12	1	3		1
Miami*	31	23	27	—4	6			1	1
Wabash*	37	32	29	3	2	4	5	2	1
Huntington	33	25	24	1	4		1	3	2
Howard	47	38	33	5	3	3	4	1	2
Grant	77	47	54	—7	22	1	4	1	4
Total	293	216	218	—2	50	10	20	8	11
Twelfth District									
LaGrange	11	8	9	—1	3	1	1	1	
Steuben	21	10	9	1	10		2		
Noble	30	25	26	—1	3		2		
DeKalb	29	19	21	—2	4	1	3	2	1
Whitley	16	12	12				2	1	3
Allen	208	165	168	—3	22		9	2	13
Wells	24	21	20	1	3	2	1		
Adams*	21	19	20	—1	1			1	1
Total	360	279	285	—6	46	4	20	7	18
Thirteenth District									
LaPorte	71	53	52	1	12	3	4	2	1
St. Joseph*	175	144	148	—4	16	8	11	1	8
Elkhart	82	71	67	4	5	5	4	1	2
Starke	6	3	5	—2	3				
Pulaski	9	4	4		4		1		
Fulton	16	13	13		3				
Marshall	34	28	26	2	1	2	2	2	3
Kosciusko	28	20	22	—2	3		3	5	
Total	421	336	337	—1	47	18	25	11	14

Summary by Districts

County Society	M Ds in * County	Members Dec. 31, 1940	Members Dec. 31, 1939	Loss — Gain	Eligible Non-Mems.	New Members	Removed and Retired	Deceased	Ineligible
1st District	304	228	218	10	46	16	27	8	8
2nd District	192	151	150	1	27	7	12	5	4
3rd District	172	126	126		24	7	17	4	5
4th District	170	131	127	4	17	5	12	2	12
5th District	207	167	173	—6	27	4	7	2	7
6th District	221	173	165	8	21	7	14	7	13
7th District	931	684	662	22	175	51	61	12	33
8th District	255	192	194	—2	43	7	14	5	7
9th District	294	227	227		37	11	23	5	7
10th District	351	279	263	16	51	21	23	2	8
11th District	293	216	218	—2	50	10	20	8	11
12th District	360	279	285	—6	46	4	20	7	18
13th District	421	336	337	—1	47	18	25	11	14
Total	4171	3189	3145	44	611	168	275	78	147

** Physicians are listed in the counties in which they hold membership, not in the counties in which they reside.*

2. *Merger of LaPorte and Starke County Medical Societies.* The secretary read the following letter from the secretary of the LaPorte County Medical Society:

> "It has been brought to my attention that the doctors of Starke County wish to become members as a group of the LaPorte County Medical Society. I assume that it will be necessary to change the name of our society to the LaPorte-Starke County Society. Please advise me what steps are necessary."

Dr. White moved that the Council approve the joining of the LaPorte and Starke County Medical Societies, under the guidance of their councilor, and that the new organization be called the LaPorte-Starke County Medical Society. Motion taken by consent.

LEGISLATIVE MATTERS

Upon the motion of Dr. Clark, seconded by Dr. Ellison, the Council went into executive session to hear Dr. Norman M. Beatty and Dr. J. William Wright, co-chairmen of the Committee on Public Policy and Legislation, discuss legislative matters.

1. Dr. Beatty spoke of the bill which is being prepared to reorganize the State Board of Health. The Council gave the legislative committee the authority to work in accordance with Dr. Beatty's suggestions and pledged its support in this matter.

2. *Changes in hospital commitment law recommended by House of Delegates.* The secretary read the following excerpt from the report of the Reference Committee on Public Policy and Legislation which was submitted to the House of Delegates at the French Lick meeting:

> *"The resolution presented by Dr. Carl M. Clark of Gibson county. This is in regard to House Bill 74. We do not approve this resolution, but wish to offer the following suggestions in the change of House Bill 74:*
>
> *"That every indigent case sent to any hospital should be certified by the judge having jurisdiction upon recommendation of the family physician and one other physician appointed by the judge, making two physicians; the hospital to be chosen by the judge. The payment for such hospitalization to be made by the county from which the patient is committed."*

It was taken by consent that this matter be referred to the legislative committee and motion by Dr. C. J. Clark, councilor, that "the legislative committee be authorized to make every effort it can to secure hospitalization in local hospitals through whatever means seems best at this time" was seconded, and carried.

3. *Cash indemnity medical insurance and medical service plans.* The Reference Committee on Health Insurance at the French Lick meeting recommended that "the Council take such action as may be deemed advisable to advance these purposes and initiate such legislation as may be needed." The secretary reported that the Governor's committee which was appointed to draw up a group hospitalization bill has no bill to present at this time to the legislature but probably the bill will be drawn for presentation later. Dr. Clark moved that "we leave this in the hands of the executive and legislative committees if and when a bill is presented, these committees to keep the Council informed." Motion duly seconded, and carried.

4. *The proposed construction of a 75-100 bed psychiatric hospital* at the Indiana University Medical Center was mentioned as a matter of information.

5. *Non-profit hospitalization.* This subject was discussed by Drs. Austin, White, Mitchell, the secretary and the chairman.

LUNCHEON

The Council recessed for luncheon in private dining room No. 2 of the Columbia Club.

The following guests and committee chairmen were present and gave brief reports on the activities of their offices:

Dr. C. H. McCaskey, member of the Executive Committee. "I have a very short report which is only informative. You no doubt all know that we meet once each month, rain or shine, hot or cold, and we work from seven to nine hours at each meeting. One thing I think you all should know, and probably do know, is that the executive committee sets out no policies. The policies of the Indiana State Medical Association are all laid down for the committee by the House of Delegates and the Council. Therefore, our duty is more or less advisory. We try not to interfere in any way with the affairs of the local county medical societies. We leave all their problems up to them for their discussion and decision and we deal with them only in an advisory way. Some things are forced upon us between the meetings of the House of Delegates and the Council of the association that we have to refer to the Council for action. If you

have anything which you wish to bring before the executive committee—we meet monthly and the date is always posted in THE JOURNAL—you have the privilege of referring it to this committee and we will handle the problem to the best of our ability."

Dr. D. F. Cameron
Dr. H. G. Hamer
Dr. George Dillinger
} delegates to the American Medical Association.

Dr. W. D. Gatch, dean, Indiana University School of Medicine. "For your information I might speak of the effect of the present emergency on the training of medical students. The situation might conceivably get beyond control. There has been a movement, started in Chicago, not of course by the American Medical Association, to increase greatly the number of medical graduates . . . trebling the number of men they turn out. That is not in the interest of the public or in the interest of the medical profession. That would be bound to flood the country with a lot of incompetent doctors. I hope that doesn't last long.

"Another problem is that of the men who have been called into service. I receive about three calls a week from doctors in other parts of the state begging me to find someone to take over their practice. I am unable to send anyone. Colonel Hilldrup gave a talk before the medical school in which he said the general policy is not to take men established in practice and not to take medical students or interns. After that everyone is to go and they are putting pressure on them. . . . That is, after these men finish their internship they will have to go into public service. I believe that we are likely to face a rather trying time because so many of our men will be taken that it will be difficult to carry on the work in our hospitals."

Dr. John W. Ferree, secretary, Indiana State Board of Health. "Dr. Beatty has made a report to the Council in regard to the reorganization bill for the State Board of Health. The only other thing we have to consider at this legislature is to secure the enactment of a bill which will allow the continuation of the appropriation for vaccines and pneumonia serum. Some legislation will be introduced regarding agricultural and chemical poisons. Other than that we have no legislation in mind except that there may be a request made for a fund, which doesn't require legislative action, to make a study of the health laws of the state with a view to recodifying them. They haven't been revised since the State Board of Health was organized in 1881."

Dr. O. W. Greer, director, Services to Crippled Children, Indiana State Department of Public Welfare. "I merely wish to express the appreciation of my entire division for the privilege of being allowed to serve you during the past year."

Dr. H. B. Mettel, director, Bureau of Maternal and Child Health, State Board of Health. "I have no formal report. Our work at the Bureau of Maternal and Child-Health involves the cooperation of so many committees which are reporting today that it would be a repetition to discuss the functions and activities of our Bureau during the past year. These will be brought out in the reports of the following committees: Committee on Medical Education and Hospitals; Bureau of Publicity; Advisory Committee to the Bureau of Maternal and Child-Health of the Indiana State Board of Health of the Indiana State Medical Association; Subcommittee to Study Infant and Maternal Morbidity and Mortality Rates in Indiana; Advisory Committee of the Division of Crippled Children of the Indiana State Department of Public Welfare; and, the report of the Dean of Indiana University School of Medicine.

"I wish to thank the state association through the Council for the cooperation we have had from these committees."

Dr. H. L. Murdock, chairman, Committee on Scientific Work. "This spring we will meet to formulate the program for the state medical association meeting. If there are any speakers, any out-of-town men you would like to see on the program, or any policies as to the way you would like to have the program carried out, if you will write to me or Tom we will consider your suggestions at our meeting and see what we can do."

Dr. N. M. Beatty, co-chairman, Committee on Public Policy and Legislation. "One of the biggest things that the profession will have to face in Indiana this year is this entire reorganization of government.

"As has been mentioned, there will be a bill that will have to do with the examination of teachers for tuberculosis. Your committee has met with representatives of the tuberculosis association and has attempted to see that the professional sides of that bill are in keeping with what the association believes in.

"The Indiana Inter-professional Health Council is sponsoring a bill that has to do with agricultural chemicals, the regulation of the purchase of drastic poisons.

"The legislative committee would like to say this —that we feel that it is very pertinent for the members of the other committees who have legislation to introduce to contact us as soon as possible. If they have other phases to be brought up we would appreciate having them.

"We are always glad to have the help and aid of everyone, and we certainly are going to need that at this session."

Dr. Herman M. Baker, chairman, Committee on Medical Education and Hospitals. "As you know, the Committee on Medical Education and Hospitals has for a good many years been devoting a major portion of its energy and thought to the business of trying to bring and stimulate an increase in

medical education to the practitioner in his own community. We have experimented with a number of plans and programs. It has been the thought of the committee for a number of years that the only way this thing can be accomplished properly is to employ an individual to go out and organize these programs. The voluntary thing has fallen down. We have tried various methods of approaching this problem and they do not seem to have worked. Two years ago, at the time the discussion was up regarding the raise in dues, if you remember, a part of that raise in dues was supposed to be used in the development of graduate education.

"This morning the committee met again and canvassed this whole problem. The thought of the committee is to try some additional experimentation. It is the sense of the committee that for the coming year, granting that a number of district programs have not been made up, we attempt to organize clinical teaching in the district medical societies; these teaching days to be held on the day of the district meetings, and actually have patients there. The physicians in the district could bring their patients, their problem cases; the man who brings the case to present the case himself—presentation of the case and the development of the discussion locally, for the men, right there on the ground. Various types of programs could be developed. It is the feeling of the committee that the only way that this thing can be developed is to have some individual go into the community and organize the program. The committee is asking the advice and consent of the Council to employ experimentally a part-time man, probably some young physician who lives in the center of the state, to be paid to go out and contact the district and county officers and organize a teaching day, using patients of physicians right in the community, and have these physicians present the cases, and have teachers who by experience can lead the discussion. Such a man could be paid on a per diem basis or $50.00 a month plus travel expense of 5 cents a mile. If it works in the districts, ultimately it can be extended into the county societies. Our budget this year was $750.00, of which about $600.00 is being returned. The budget for this experiment is estimated to run between $750.00 and $1,000.00. The committee would like to ask the advice and consent of the Council in regard to this plan."

Dr. J. H. Hewitt, chairman of the legislative committee of the Fountain-Warren County Medical Society, and a former state senator. "Our medical society met last week in Warren and Fountain counties, and I was instructed to bring to your body a thought that came there. When the United States Congress gets up against a problem, it appoints a special committee to investigate and report to the next session its findings and recommendations. In view of the fact that we are troubled with many cultists we thought it would be well to appoint just such a committee in Indiana. If the Governor would appoint a joint House and Senate committee selected from the public health committees of each body, to investigate thoroughly the medical conditions of the state of Indiana and report its findings at the next legislature, I believe it would be a very wholesome thing."

Dr. R. L. Hane, chairman of Committee on Secretaries' Conference, announced that the next important meeting of the association would be the annual secretaries' conference on Sunday, January 19, in Indianapolis.

Dr. E. O. Asher, chairman, State Board of Health Liaison Committee to Deal with Social Security Act. "I have two things I would like to mention. First, regarding the name of this committee, which is a topheavy name inferring that we have great capacity, where, as a matter of fact, we are only an advisory committee to the Bureau of Maternal and Child Health of the State Board of Health. In our report to the House of Delegates last year we recommended that the committee be called the Advisory Committee to the Bureau of Maternal and Child Health of the Indiana State Board of Health, and we would like to have that name used. Second, our committee has had fine cooperation from the State Board of Health. . . . We anticipate a problem this year in the Charlestown and LaPorte areas where many people are living in trailers."

Dr. H. F. Beckman, chairman, Sub-Committee to Study Maternal Morbidity and Mortality Rates for Indiana. "This committee has been functioning for perhaps seven years now, and I think it is through the efforts of this committee that the maternal mortality in the state of Indiana has been reduced 33 per cent and the infant mortality, in the first month of life, has been reduced 30 per cent during the period of our existence. So we feel that the efforts of this committee have borne fruit. There is one humorous aspect—the maternal mortality questionnaire is not so popular as the infant mortality questionnaire. Our objective is fact-finding. At the last state meeting we recommended that each county society appoint a committee for this same purpose because we have learned that the influences which affect infant and maternal mortality vary in the different communities and this certainly is a subject for the consideration of each community."

Dr. I. C. Barclay, chairman, Liaison Committee with Indiana Crippled Children's Bureau. "I again want to express the appreciation of the Bureau for the privilege of being of assistance to some of the doctors of the state of Indiana during the recent epidemic of poliomyelitis which we had last summer. I think it would be of use to you to know, if we have another such epidemic, that there is a service available to the physicians of the state offered by the Department of Services to Crippled Children."

Dr. C. A. Stayton, chairman, Committee on Control of Cancer. "The Committee on Control of

Cancer had a meeting this morning and I am proud to announce that we had 100 per cent attendance which is something very rare in my experience. The work of this committee, as you know, has to do largely with the Women's Field Army, organized for the purpose of disseminating information about cancer. Here in Indianapolis on February 3 and 4 the Women's Field Army is sponsoring a regional conference. Indiana is in the region with West Virginia, Ohio and Michigan. At 6:30 on February 3, in the Claypool Hotel there will be a dinner meeting at which Dr. Bauer of the A.M.A., Dr. Frank Adair of the Memorial Hospital, New York, and Dr. C. C. Little, the director of the American Society for the Control of Cancer, are to speak. You and your wives are invited to this dinner. The regional meeting is for the purpose of coordinating the efforts of this organization of women in its campaign for the control of cancer."

Dr. Alfred Ellison, chairman, Committee to Study Cultists and Irregular Practitioners. "I have nothing further to report from this committee except to remind you of the fact that this committee has on file the names and records of some one hundred impostors in the state.

"The State Board of Medical Registration and Examination is the people's body, the authorized organization to see that the proper people are licensed. We would like for the state medical society to try to get the legislature of Indiana to pass this annual registration law which will do two things—put enough money in the hands of this board so that it can enforce the law."

Dr. W. U. Kennedy, director of Research on Sickness Insurance. "A considerable number of observations have been collected which will be briefed and handed to the legislative committee if and when this proposed hospitalization bill is presented. We were fortunate when the Governor vetoed the last bill. In other states, where it was adopted, it is far from satisfactory. There is increasing evidence that the whole situation of medical care is not primarily an insurable thing. The experience now is that wherever these plans are adopted they are building up trouble, trouble everywhere, and I think we are fortunate in our state that the bill didn't go through and we probably will be better off if the bill doesn't come up again at all."

Captain Glen Ward Lee, M.D., chief, Medical Division, Indiana Selective Service. "The Governor of Indiana was questioned by Washington as to the set-up of our medical advisory boards for Selective Service and through his investigation he was able to report that we were in very good shape, which was not true in all states, in that we had very high class personnel on all of our boards. In a few cases we do have improper personnel, improperly classified; a few individuals are on boards who are not qualified to fill the position they are supposed to be holding. I would like to request that you again check those lists. Check on the men's qualifications for the offices which they hold. We have had some difficulty in regard to radiologists in the southern part of the state, but really I am happy to relate that Indiana is very much in line in that we have been placing about 10 per cent of the men who have received questionnaires in Class 1-A, that is, qualified and physically fit. That varies from 6 per cent to 28 per cent in various states.

"Incidentally I should like to clarify one other situation; that is regarding the letter which was sent out through the M-Day committee and which had wide distribution. It was intended to be a jacking-up process which was necessary in a few isolated cases. We thought it better to do that rather than make a specific example of a few cases. However, there again we were much better than some states who went very much higher on rejections. Our rejections at the induction station were 15.2 per cent of the total men delivered. We have had very fine cooperation on the part of the entire medical profession in expediting the examination of these registrants. We shall always have a certain number of rejections at the induction stations from the physical examinations of the local examining physicians and the advisory boards; that is bound to result from differences in viewpoint of the examiners. We are now going to have to educate ourselves to the national viewpoint, the national responsibility, that may result from putting these men into service. It has cost the federal government one billion dollars to take care of psychiatric cases resulting from the last war. It has been estimated that 5 per cent of those who fall into our class 1 who are eligible from the standpoint of situation in their community will require a close check-up, and a large portion of that 5 per cent should be rejected. If we keep only one man per board out, when he should not be sent from a psychometric standpoint, we are going to save the government billions in the next twenty years. In the large number of men we have had we are bound to find all types of attitudes and all kinds of make-ups of individuals.

"In this day, when much of the world is being overrun or controlled by radical or destructive dictators, we must keep in mind that doctors are the greatest group of individualists left in the world but we are going to have to submit ourselves to a certain amount of regimentation. Personally I really feel that while we have recently been called a union, have violated the anti-trust laws, we probably will do more for our profession, to sustain the attitude of the general public in our favor in recognizing us as a group that is always willing to give our time and our service to our government, if we conscientiously and in a satisfactory manner do the job which has been placed upon us. The closer we cooperate with the government now, probably the better benefits we shall derive in the future."

Dr. H. W. Smelser, member of Committee on Physical Therapy. "We want to know just what

doctors are practicing physical therapy and also how many cultists in Indiana are practicing physical therapy. There will be a questionnaire sent out in the near future and we would like to have that questionnaire returned so we will have this information. We feel that the practice of physical therapy should be returned to the physicians."

Dr. J. S. Leffel, chairman, Medical Relief Committee. "This committee has been in existence for a year. During the past year we have spent most of our time first of all trying to cooperate with the state Council, and that has been a very pleasant cooperation. Second, we have tried to cooperate with the people who pay the bills, the trustees, and that has been very pleasant.

"About a month ago we met with a committee from the Indiana State Hospital Association, a committee from the Indiana Township Trustees Association, a member of the State Board of Accounts, and Mr. Espinosa, the state statistician. That meeting was held to discuss a survey that will come out soon which was prepared from data gotten from questionnaires that were sent to each of the 1,016 trustees in the state of Indiana. I think that meeting was very worthwhile because the State Hospital Association and the State Medical Association both insisted that before this was brought out there should be a very detailed interpretation and explanation of the figures so that they would not be misinterpreted.

"I have recently received copies of two bills that will be introduced in the legislature. One bill will be introduced by the State Trustees' Association which will make it mandatory for the doctor or hospital, in case of an emergency, to notify the trustee within three days from the time the emergency started. In our opinion, there isn't anything unfair in that sort of a bill. However, we are asking to be put into that bill a time limit that the trustee has in which he is going to decide if it is an indigent case or not.

"Another bill is being introduced by the State Chamber of Commerce, the purpose of which is to cut down the expense of the indigent. We approve the purpose. Since 1933, each year the medical costs, including hospital and doctors' fees, have increased, and this year, on the basis of the first six months, the cost will be around 60 per cent more than it was in 1933. The purpose of the State Chamber of Commerce bill is to reduce that expenditure. No trustee is allowed to spend more or contract to spend more than his appropriation for relief purposes. I think that the bill if enacted into law will not accomplish the thing that the State Chamber of Commerce believes that it will accomplish. It would tend to make a trustee appropriate more than he might think he needed so that he would not run out of funds. Due to the fact that the matter of indigency depends upon unknown quantities, one would conclude that the trustee would appropriate more than he needed and he would be likely to spend the balance rather than to save it. The only thing he can do is to stabilize his expense with contract practice and that is what your committee is against."

MEETING FOLLOWING LUNCHEON

Bill to clarify the statute of limitations. Mr. Stump discussed with the Council the bill which will be introduced in the legislature to make it clear that all action for personal injuries would be barred at the end of two years after the injuries were inflicted. Dr. Clark moved that "we not sponsor the bill as mentioned by our attorney but that we support it." This motion was seconded by Dr. Kennedy, and carried.

Dr. W. D. Gatch. "I would like to discuss a matter which I think is of great importance, that is, the drafting of medical students. It is important to every doctor in the state. So far as we can determine there is no blanket regulation coming out from Washington which exempts medical students. The medical student is in the same position as any other young man in the community; whether he shall be taken or not depends entirely on his local draft board. I spoke about the movement to increase the number of doctors. All will agree it would be disastrous to flood the profession with a number of half-baked physicians. Every day boys are coming to me for help because they have been drafted. If you as a body could take some action wherein you would strongly favor the medical student, I would appreciate it very much."

Dr. Barclay. "There is no blanket coverage. Dr. Lee feels that in the near future further orders will be forthcoming from Washington in this matter. If the boys get six months' deferment at a time, then take an appeal, I believe they won't meet with any resistance from Washington."

Dr. Mitchell. "Dr. Dykstra said the individual is not to be considered, only the community."

Dr. Gatch. "If something isn't done pretty quickly every hospital in the state is going to be up against it for interns. I would ask you to consider that matter. We can get along if they will let the boys stay with us until the completion of the first year of internship."

Dr. Clark moved that the Council, representing the Indiana State Medical Association, go on record as authorizing Dr. Gatch, in the interest of the public welfare and national defense, to write in any manner he sees fit and present the matter to Dr. Abell's committee, sending a copy of his letter to Dr. Dykstra and Dr. West, and see if something can't be done in this regard. This motion was seconded by Dr. Kennedy, and carried. It was suggested that each councilor who is on an appeal board use his influence to keep medical students deferred for six months.

Dr. Wadsworth. "The county appeal board in Daviess county held last week a decision which every appeal board should notice. The Daviess

county board held that we are not in a 'state of war,' but that we are in a 'state of defense.' I wish every appeal board in the state would note that ruling."

NEW BUSINESS

1. *Dr. Hewittt's suggestion.* The Council went on record approving the suggestion presented by Dr. Hewitt at the luncheon.

2. *Contract with editor of* THE JOURNAL. Dr. Clark moved that the Council sign the formal contract, prepared by the attorney of the association, with Dr. Shanklin, editor of THE JOURNAL. Motion taken by consent.

3. *Nominations for Editorial Board.* Dr. Perry nominated Drs. W. W. Duemling, Fort Wayne; Robert V. Hoffman, South Bend; R. A. Fargher, LaPorte, and Eugene F. Boggs, Indianapolis.

Dr. Wadsworth nominated Dr. James B. Maple, Sullivan, and Dr. Robert G. Moore, Vincennes.

Dr. Clark nominated Dr. J. O. Ritchey, of Indianapolis.

Dr. White nominated Dr. N. K. Forster, of Hammond.

Dr. Clark moved that the nominations be closed.

4. *Apportionment of work of Permanent Study Committee on Health Insurance and National Medical Situation in accordance with resolution of House of Delegates.* Dr. Perry moved that study of the national medical situation be assigned to the legislative committee and that the health insurance situation be left to the present committee. Motion seconded by Dr. Kennedy, and passed.

5. *Physicians on Industrial Board.* Upon Dr. Clark's motion the Council went on record approving the suggestion that a physician should be on the Industrial Board.

6. *Dr. Baker's suggestion.* Dr. White moved that the matter of organizing postgraduate programs in the districts be laid on the table. Motion duly seconded, and passed.

7. *Study Committee on Aid to Needy Physicians.* It was taken by consent that this committee shall constitute itself as a fact-finding committee.

ELECTIONS FOR 1941

1. *Two members of Executive Committee for 1941.* Dr. Clark moved that Dr. C. A. Nafe and Dr. C. H. McCaskey, the present members, be reelected for 1941. Motion duly seconded and carried.

2. *Chairman of Council.* Upon the motion of Dr. Kennedy, seconded by Dr. Clark, Dr. F. T. Romberger was elected chairman of the Council for 1941.

There being no further business, the meeting was adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

LOCAL SOCIETIES

1941 OFFICERS

(Numerous reports were published in the January issue; these additional reports have been received since publication of that issue.)

BOONE COUNTY MEDICAL SOCIETY:
President, Clancy Bassett, Thorntown
Vice-president, O. E. Brendel, Zionsville
Secretary-treasurer, L. M. Headley, Lebanon

CLARK COUNTY MEDICAL SOCIETY:
President, W. Marshall Varble, Jeffersonville
Vice-president, J. H. Baldwin, Jeffersonville
Secretary-treasurer, E. P. Buckley, Jeffersonville

DECATUR COUNTY MEDICAL SOCIETY:
President, R. M. Blemker, Greensburg
Vice-president, B. L. Mahuron, Greensburg
Secretary-treasurer, W. C. Callaghan, Greensburg

DE KALB COUNTY MEDICAL SOCIETY:
President, Bonnell Souder, Auburn
Vice-president, Dorsey Hines, Auburn
Secretary-treasurer, C. B. Hathaway, Butler

ELKHART COUNTY MEDICAL SOCIETY:
President, J. M. Fleming, Elkhart
Vice-president, H. K. Lemon, Goshen
Secretary-treasurer, S. T. Miller, Elkhart

FORT WAYNE (ALLEN COUNTY) MEDICAL SOCIETY:
President, E. C. Singer, Ft. Wayne
Vice-president, Philip S. Titus, Ft. Wayne
Secretary, R. L. Hane, Ft. Wayne
Treasurer, M. F. Popp, Ft. Wayne

FOUNTAIN-WARREN COUNTY MEDICAL SOCIETY:
President, W. A. Johnson, Perrysville
Vice-president, John S. Hash, Williamsport
Secretary-treasurer, Margaret T. Owen, Attica

FULTON COUNTY MEDICAL SOCIETY:
President, K. K. Kraning, Kewanna
Vice-president, D. K. Stinson, Rochester
Secretary-treasurer, A. E. Stinson, Rochester

HENRY COUNTY MEDICAL SOCIETY:
President, R. L. Amos, Newcastle
Vice-president, J. S. McElroy, Newcastle
Secretary-treasurer, William Robertson, Spiceland

JAY COUNTY MEDICAL SOCIETY:
President, Donald E. Spahr, Portland
Vice-president, O. L. Meyer, Portland
Secretary-treasurer, B. M. Taylor, Portland

JOHNSON COUNTY MEDICAL SOCIETY:
President, Harry E. Murphy, Franklin
Vice-president, Charles E. Woodcock, Greenwood
Secretary-treasurer, Florence Blackford, Franklin

LAKE COUNTY MEDICAL SOCIETY:
President, J. S. Niblick, East Chicago
Vice-president, G. W. Gannon, Gary
Secretary-treasurer, Harry Brandman, Whiting

MARSHALL COUNTY MEDICAL SOCIETY:
President, P. R. Irey, Plymouth
Vice-president, R. C. Stephens, Plymouth
Secretary-treasurer, L. W. Vore, Plymouth

MIAMI COUNTY MEDICAL SOCIETY:
President, D. W. Ferrara, Peru
Vice-president, F. R. Mallott, Denver
Secretary-treasurer, H. W. Eikenberry, Peru

ORANGE COUNTY MEDICAL SOCIETY:
President, John K. Spears, Paoli
Vice-president, Keith Hammond, Paoli
Secretary-treasurer, George Dillinger, French Lick

PARKE-VERMILLION COUNTY MEDICAL SOCIETY:
President, J. L. Saunders, Newport
Secretary-treasurer, J. R. Bloomer, Rockville

PIKE COUNTY MEDICAL SOCIETY:
President, John T. Kime, Petersburg
Vice-president, A. A. Logan, Petersburg
Secretary-treasurer, L. M. McNaughton, Petersburg

PORTER COUNTY MEDICAL SOCIETY:
President, W. M. Parkinson, Chesterton
Vice-president, E. J. DeGrazia, Valparaiso
Secretary-treasurer, C. B. Nash, Valparaiso

PULASKI COUNTY MEDICAL SOCIETY:
President, C. E. Linton, Medaryville
Secretary-treasurer, T. E. Carneal, Winamac

PUTNAM COUNTY MEDICAL SOCIETY:
President, W. J. Fuson, Greencastle
Secretary-treasurer, W. E. Tipton, Greencastle

RUSH COUNTY MEDICAL SOCIETY:
President, Robert D. Spindler, Milroy
Vice-president, Frank Green, Jr., Rushville
Secretary-treasurer, Willard Smullen, Rushville

SHELBY COUNTY MEDICAL SOCIETY:
President, Herbert H. Inlow, Shelbyville
Vice-president, O. R. Wilson, Shelbyville
Secretary-treasurer, J. A. Davis, Flat Rock

SPENCER COUNTY MEDICAL SOCIETY:
President, J. C. Glackman, Sr., Rockport
Vice-president, C. D. Ehrman, Rockport
Secretary-tresaurer, V. V. Schriefer, St. Meinrad

TIPPECANOE COUNTY MEDICAL SOCIETY:
President, Wayne T. Cox, Lafayette
Vice-president, J. W. Strayer, Lafayette
Secretary, J. C. Burkle, Lafayette
Treasurer, Charles Hupe, Lafayette

WHITE COUNTY MEDICAL SOCIETY:
President, H. W. Greist, Monticello
Secretary-treasurer, H. B. Gable, Monticello

LOCAL SOCIETY REPORTS

Bartholomew County Medical Society members held a meeting on December eighteenth. Officers were elected for the ensuing year.

* * *

Carroll County Medical Society members met at the Library in Delphi on December twelfth. Officers were elected. After the business meeting, dinner was served at the Crosby Cafe.

* * *

Cass County Medical Society members held a dinner meeting and Christmas party on December twentieth. Their families were guests of the evening.

* * *

Clinton County Medical Society members met at the Clinton County Hospital, Frankfort, on January seventh with sixteen members in attendance. Dr. Kenneth Craft, of Indianapolis, spoke on "Nasal Allergy."

* * *

Dearborn-Ohio County Medical Society members held a meeting at Lawrenceburg on January second. The meeting was devoted to a discussion of the society's policies and business affairs in general. Fourteen members attended the meeting.

* * *

Decatur County Medical Society members met at Greensburg on December eighteenth. Dr. Clifford C. Taylor, of Indianapolis, spoke on "X-ray Possibilities." Ten members attended this meeting.

* * *

Delaware-Blackford County Medical Society members held their annual dinner-dance at the ballroom of Hotel Roberts, Muncie, on December eighteenth. More than one hundred members and guests attended.

* * *

Fayette-Franklin County Medical Society members held a meeting at the McFarlan Hotel, Connersville, on December tenth. Dr. William Shimer, of Indianapolis, spoke on "The Pathology of Coronary Diseases." Eleven members attended.

* * *

Fort Wayne (Allen County) Medical Society members held its annual Christmas party at the Chamber of Commerce Building. Wives and other guests were entertained, the attendance numbering 165. Members aged seventy and over were honor guests. Music was provided by the Scottish Rite Choir of Fort Wayne, and an after dinner talk was given by Dr. John G. Benson, of Indianapolis, on the subject "He Who Laughs."

At the January seventh meeting, Dr. M. H. Draper, of Fort Wayne, spoke on "The Surgical Treatment of Tuberculosis." Twenty-nine members attended this meeting.

* * *

Fountain-Warren County Medical Society members met at the Mudlavia Springs Sanitarium, Kramer, on January second for a dinner meeting. Guest speaker was Dr. A. J. Fletcher, of Danville, Illinois, who spoke on "The Care of Premature and Newborn Infants."

* * *

Hamilton County Medical Society members held their annual meeting, for the election of officers, on December eleventh. A turkey dinner was served. The after-dinner talk was given by Albert Stump, attorney for the Indiana State Medical Association, who discussed the legal side of medicine.

* * *

Hendricks County Medical Society members met at Crawley's Hall, at Danville, on December twentieth.

Dr. D. W. Brodie, of the Sunnyside Sanatorium at Indianapolis, gave a paper on "Tuberculin Tests for Children." Picture slides were shown. The society voted to set aside $130.00 to be used in cases of infantile paralysis when there is a need for such a cause, there being no such cases of infantile paralysis in the county at present.

* * *

Henry County Medical Society members held a meeting at the Plaza Hotel, Newcastle, on December nineteenth. Dr. M. A. Austin, of Anderson, president-elect of the Indiana State Medical Association, spoke on "Medical Chauvinism." Guests at this meeting included Dr. Samuel Kennedy, of Shelbyville, sixth district councilor, and Mr. Thomas A. Hendricks, executive secretary of the Indiana State Medical Association. Sixty-five members and guests attended.

* * *

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club on January seventh.

* * *

Johnson County Medical Society members met at the Hillview Country Club, Franklin, on December eighteenth, in a joint meeting with the Franklin Rotary Club. Dr. C. R. Bird, of Indianapolis, chairman of the M-Day and Veterans' Affairs Committee of the Indiana State Medical Association, spoke on "Preparedness."

* * *

Lake County Medical Society members held a meeting at the Woodmar Country Club in Hammond on December twelfth. Officers were elected for the ensuing year. The entertainment at the annual meeting was in charge of Dr. Philip J. Rosenbloom.

* * *

LaPorte County Medical Society members met at Hotel Rumely on December nineteenth for their annual business meeting and election of officers. About forty members attended this meeting. The speaker of the evening was Dr. K. T. Knode, of South Bend, his subject being "The Care of Preschool Age Children."

* * *

Madison County Medical Society members held a meeting at St. John's Hospital on December sixteenth. Officers were elected for the ensuing year. A discussion was held on the problems of examining selective service men. The Society now has an enrollment of seventy-nine members, the largest number ever enrolled at one time.

* * *

Marshall County Medical Society members held a meeting at the Parkview Hospital on December thirtieth. Dr. R. C. Stephens, of Plymouth, was the speaker of the evening.

* * *

Monroe County Medical Society members held a business and dinner meeting at Boxman's Restaurant, Bloomington, on December eighteenth. New officers were elected. Dr. Philip T. Holland, of Bloomington, reviewed the achievements of the past year, pointing out the progress made in public health and public relations.

* * *

Montgomery County Medical Society members held a dinner meeting at the Country Club on December nineteenth. Wives and other guests were entertained.

* * *

Owen County Medical Society members held a meeting on December thirteenth. Officers were elected for the ensuing year.

* * *

Parke-Vermillion County Medical Society members held a meeting at the Vermillion County Hospital, Clinton, on December eighteenth. Dr. R. E. Brown, of Cayuga, spoke on the "Care of Premature Infants." Nine members were in attendance.

* * *

Porter County Medical Society members held a meeting at the Porter Memorial Hospital on December thirtieth. Dr. J. M. White, of Gary, spoke on "Shoulder Pain." Fifteen members attended this meeting.

* * *

Putnam County Medical Society members held a dinner and business meeting at the Putnam County Hospital on January ninth.

* * *

Randolph County Medical Society members held their first meeting of the year at the Randolph County Hospital on January thirteenth. Dr. I. E. Brenner, of Winchester, spoke on "Pre and Post-Operative Treatment of Thyroid."

* * *

Spencer County Medical Society members held a banquet at the Montgomery Tea Room, Rockport, on January third. Ten members were in attendance.

* * *

St. Joseph County Medical Society members held their annual meeting on December tenth at the Indiana Club Building. Officers were elected.

* * *

Tri-County Medical Society members held a meeting at Washington on December seventeenth. Officers were elected for 1941. Dr. J. W. Strange, of Loogootee, read a paper eulogizing the late Dr. T. A. Hays, of Burns City, who died on November twenty-seventh.

* * *

Wabash County Medical Society members met at the Indiana Hotel, Wabash, on January eighth. Dr. Russell Sage, of Indianapolis, was the speaker of the evening. Drs. G. M. and R. M. LaSalle, of Wabash, entertained the society members at dinner. Twenty members were in attendance.

* * *

Wayne-Union County Medical Society members held their annual business meeting at Richmond on December twelfth.

WOMAN'S AUXILIARY

President—Mrs. C. L. Bock, Muncie
President-elect—Mrs. E. O. Nay, Terre Haute
Corresponding Secretary—Mrs. T. R. Owens, Muncie
Treasurer—Mrs. M. W. Hillman, South Bend

Again, the Indiana state auxiliary is happy to welcome into its organization a new group, that recently formed in LaPorte County. This new auxiliary chose Mrs. F. M. Fargher of Michigan City as their president.

* * *

Due to the fact that the Woman's Auxiliary to the Carroll County Medical Society has but eleven members, they have found it more interesting and profitable to meet with their husbands once a month. In November, the number present at the joint meeting was augmented to thirty-one by the addition of dentists and their wives, who were special guests that night. Dr. Waldo of Indianapolis was the speaker. In December the auxiliary met in a separate session in order to elect officers for 1941—Mrs. Charles Wise, Delphi, president; Mrs. Max Adams, Flora, vice-president; Mrs. H. Y. Mullin, Rockfield, secretary; and Mrs. E. H. Brubaker, Flora, treasurer.

* * *

The Christmas party of the Delaware-Blackford auxiliary brought thirty members together on December 17, in Muncie. They are fortunate in having our state president, Mrs. C. L. Bock, as one of their members, for she is not only an added stimulus to active auxiliary work, but also tells most entertaining Christmas stories, as she proved that afternoon.

* * *

Local milk supply problems in relation to city health were the subject of discussion at the meeting, January 2, of the Elkhart County auxiliary. Twenty-three members were present.

* * *

The legislative committee, of which Mrs. Emmett Lamb is chairman, provided an interesting meeting for the Marion County auxiliary on January 6, at the Health Center. Dr. Norman Beatty and Mr. Thomas A. Hendricks discussed medical legislation pending in the present session of the state legislature, and made some suggestions about what we might be able to do to assist in getting the proper bills passed. Fifty-one members attended the meeting.

* * *

The last number of the *Bulletin*, official organ of the Woman's Auxiliary to the American Medical Association, included a section entitled "Plans and Projects of Auxiliaries to State Medical Societies for 1940-41," made up of articles written by state presidents. This seemed so apropos of the most extensive discussion at the annual state auxiliary meeting in French Lick—that is, the question of what the Indiana state auxiliary should adopt as

(Continued on page xxii)

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"While part of my confidence in humanity has vanished, it is that much stronger in The Medical Protective Company."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(52,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $33.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $66.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $99.00 per year

38 years under the same management

$1,850,000 INVESTED ASSETS
$9,500,000 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

(Continued from page xxi)

a project for the coming years—that we felt we should repeat a portion of it, so that every auxiliary member in Indiana might know what other organizations are doing. These suggestions should prove good food for thought between now and the next annual meeting in autumn, when this question will come up for decision.

There are some projects and aims which are almost universal among auxiliaries—all necessary and all commendable: The placing of *Hygeia* in schools, offices, etc., where its excellent information will be available to large groups; improvement of relations between physicians and the public; presentation to lay groups by competent speakers of the physician's side of proposed medical legislation; self-education of auxiliary members on all matters pertaining to the medical profession; more complete organization of counties within each state and increase of membership in existing organizations; and the dissemination of information on health subjects, such as pre-natal care, maternal welfare, mental hygiene, immunization against diphtheria and smallpox, prevention and cure of tuberculosis, accident prevention, food problems, alcoholism, and patent medicines. These projects are carried out in various ways by component groups. Colorado sponsors a radio health education program, in which high school children of the state take part; Florida has an annual Health Institute Day; Georgia sponsors health films, and on Mother's Day, plans to send "special messages to all mothers, urging a periodic medical examination for her and her family, with correction of all remediable defects." South Carolina offers a silver trophy for the best health project during the year; Georgia also advocates the requirement of teacher training in health education as a prerequisite for a teaching certificate; Missouri conducts an essay contest on "Conservation of Eyesight," Nebraska a tuberculosis radio essay contest, in which the best essays are given by the student contestants over the radio, and prizes awarded by the state medical auxiliary, and Texas an essay contest on "Increasing the Span of Life," open to all high school sophomores, with prizes given by the auxiliary. In addition, most auxiliary groups, either as individuals or organizations, are giving a great deal of support to various charitable institutions, orphanages, sanatoriums, preventoriums, and nurseries, as well as to the Red Cross and many war relief organizations.

Among the more specialized projects of the auxiliaries are the scholarship or student loan funds, maintained by the groups in Alabama, Arkansas, Georgia, North Carolina, South Carolina, and Texas. These vary in their administration, but are usually for the benefit of physicians' children, or for students of medicine. Colorado, Louisiana, New Hampshire, Pennsylvania, and Texas maintain funds for aiding indigent physicians, their widows or other dependents, and Virginia maintains a memorial bed in the Blue Ridge Sanatorium for the use of a doctor or doctor's dependent. Alabama auxiliaries have started collecting relics, pioneer furnishings and equipment, for a "Doctor's Shop," to be displayed locally first, and later to be placed in the Department of Archives and History in the State Capitol in Montgomery, Alabama. Arkansas has a new Library Fund Committee, whose purpose it is to raise funds for the libraries of state tuberculosis sanitoriums. North Carolina and Mississippi are interested in contributing to the Jane Todd Crawford memorial fund, and Kentucky is anxious to assist in the restoration of the Ephraim McDowell house in Danville, Kentucky. Kansas and Florida are attempting to collect historical data of medical significance.

And so they go, all busy with their chosen projects, and all anxious to do the most good for the medical profession. One of the best ways that we, as individual auxiliary members can accomplish this, is to keep ourselves well informed, and one of the best ways to do this, is to read the *Bulletin*, which gives us timely information on all phases of auxiliary work. Read your *Bulletin!*

On February third and fourth, the regional meeting of the Women's Field Army for Cancer Control will bring to Indianapolis our national auxiliary president, Mrs. V. E. Holcombe, of Charleston, West Virginia. Accompanying her will be Mrs. A. A. Seletz, also of Charleston, and the program chairman for the West Virginia state auxiliary. Mrs. Fred Gifford, president of the Marion County Auxiliary, has arranged a luncheon, at which Mrs. Holcombe and Mrs. Seletz are to be honor guests, and which all auxiliary members are invited to attend. This luncheon will be held at 12:30, February 3, in the Indianapolis Athletic Club.

Mrs. H. C. Ochsner, *Chairman*,
Press and Publicity Committee.

INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASES
Monthly Report, November, 1940

Diseases	*Nov. 1940*	*Oct. 1940*	*Sept. 1940*	*Nov. 1939*	*Nov. 1938*
Tuberculosis	126	113	187	145	137
Chickenpox	390	166	43	315	275
Measles	78	35	26	55	37
Scarlet Fever	392	200	87	540	495
Smallpox	1	4	0	8	44
Typhoid Fever	7	15	28	18	14
Whooping Cough	88	74	88	162	48
Diphtheria	74	33	29	91	98
Influenza	22	21	33	22	39
Pneumonia	44	36	31	31	60
Mumps	126	35	18	257	104
Poliomyelitis	63	89	232	10	0
Meningitis	3	6	2	2	4
Trachoma	1	0	0	2	0
Tularemia	30	0	2	6	8
Malaria	7	1	0	0	0
Undulant Fever	4	1	5	8	8
Erysipelas	1	1	0	0	0
Septic Sore Throat	2	2	1	20	0
Bacillary Dysentery	3	1	7	0	0

For the Local Treatment of Acute Anterior

URETHRITIS

(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE *

Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae. (1) An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph. Gon. & Ven. Dis., 23, 201 (March) 1939.

*Silver Picrate, is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

A complete technique of treatment and literature will be sent upon request

JOHN WYETH & BROTHER, INCORPORATED, PHILA.

CHANGE IN LOCATION

The Maples Sanitarium

formerly of St. Marys, Ohio

is now located

2½ miles east of Gomer on U.S. 30 N.

Address LIMA, OHIO, R.F.D. 3

Phone High 6447

A modern private institution for the treatment of alcoholism

Approved by the A.M.A.

A. H. Nihizer, M.D.
Medical Director

F. P. Dirlam,
Superintendent

Cook County Graduate School of Medicine

(In Affiliation with Cook County Hospital)
Incorporated not for profit.

ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, starting every two weeks. General Courses One, Two, Three and Six Months; Clinical Courses Special Courses. Rectal Surgery every week.

MEDICINE—Two Weeks Intensive Course starting June 2nd. One Month Course in Electrocardiography and Heart Disease every month, except August and December.

FRACTURES AND TRAUMATIC SURGERY—Two Weeks Intensive Course starting March 10th and May 5th. Informal Course every week.

GYNECOLOGY—Two Weeks Intensive Course starting February 24th and April 7th. Clinical, Diagnostic and Didactic Course every week.

OBSTETRICS—Two Weeks Intensive Course starting April 21st. Informal Course every week.

OTOLARYNGOLOGY — Two Weeks Intensive Course starting April 7th. Informal and Personal Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course starting April 21st. Informal Course every week.

ROENTGENOLOGY — Courses in X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES.

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore Street, Chicago, Illinois

Zemmer
OAKLAND, STATION
PITTSBURGH, PA.

PRESCRIBE OR DISPENSE ZEMMER
Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled.
Write for general price list.
Chemists to the Medical Profession. IN 2-41

BOOKS RECEIVED

CLINICAL PELLAGRA. By Seale Harris, M.D., Professor Emeritus of Medicine, University of Alabama, Birmingham, Alabama, assisted by Seale Harris, Jr., M.D., formerly Assistant Professor of Medicine, Vanderbilt University, Birmingham, Alabama. 494 pages with 66 illustrations. Fabrikoid. Price $7.00. The C. V. Mosby Company, St. Louis, 1941.

* * * *

SURGICAL ANATOMY OF THE HEAD AND NECK. By John Finch Barnhill, M.D., F.A.C.S., LL.D., formerly Professor of Otolaryngology in the Indiana University School of Medicine, Emeritus Professor of Surgery of the Head and Neck, formerly Chief of the Department of Head and Neck Surgery in the Indiana University Hospitals, and Honorary Professor of Anatomy, University of Southern California School of Medicine; and by William J. Mellinger, M.C., Associate Professor of Anatomy, University of Southern California School of Medicine, Chief of Department of E.E.N.T., Cottage Hospital, Santa Barbara, and Otolaryngologist, Santa Barbara General and St. Francis Hospitals, Santa Barbara. Second edition, rearranged and revised with many new illustrations, several in colors. 773 pages. Introduction by Paul S. McKibben, Professor of Anatomy, University of Southern California School of Medicine. Fabrikoid binding. The Williams & Wilkins Company, Baltimore, 1940.

* * * *

METHODS OF TREATMENT. By Logan Clendening, M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals and Edward H. Hashinger, A.B., M.D., Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals; Attending Physician, St. Luke's Hospital, Kansas City, Missouri. Seventh edition, 997 pages with 138 illustrations. Cloth. Price $10.00. The C. V. Mosby Company, St. Louis, 1941.

Here's an idea for you, Doctor—
Inviting them to have some wholesome
CHEWING GUM
makes for smiles all around

Of course, Doctor, as you know, chewing helps the mouth taste clean and pleasant, helps relieve tension and aids digestion. Also, it makes a satisfying in-between-meal treat.

Offer it to your patients and enjoy the daily chewing of gum yourself.

You'll like chewing gum. See how it helps make your days a trifle easier for you.

Get several packages of delicious Chewing Gum today. Have it handy for your patients and for yourself.

National Association of Chewing Gum Manufacturers
Rosebank, Staten Island, New York

V-11

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 MARCH, 1941 NUMBER 3

This is the second of a series of requested articles on the "twelve great killers." Next month the article will deal with "cancer."

CEREBRAL HEMORRHAGE

PAUL L. STIER, M.D.
FORT WAYNE

The importance of cardiovascular disease as the leading cause of death and morbidity in modern civilization is well recognized. In a previous article in this series in which certain manifestations of cardiovascular disease were considered, it was noted that the increased incidence of this type of disease appears to be dependent not only upon the fact that the average span of life has been greatly increased, but also upon an absolute increase in the incidence in the susceptible age group.[1] Modern medical science has made great progress in the prevention and treatment of the infectious diseases and in the surgical treatment of disease, but it has not, as yet, been able successfully to prevent or specifically treat the so-called "degenerative" diseases of the cardiovascular system. Occupying an important place in this group of diseases are those which are due to arteriosclerotic changes in the cerebral arteries, and it is the purpose of this paper to review our knowledge of one of the most important manifestations of these changes, the cerebral "accident." It is because cerebral accidents are so common in the daily practice of every physician that the subject is being reviewed as one of "Indiana's twelve great killers." It is a summary of some of the more important facts about a familiar disease.

Arteriosclerosis is the most common condition affecting the blood vessels of the brain. These changes which are the same as arteriosclerosis elsewhere in the body may be either a part of a generalized arteriosclerosis, or they may be restricted to or more marked in the cerebral vessels. Dependent upon the disease of the artery, several "accidents" may occur. The vessel may rupture and cause a cerebral hemorrhage, or it may thrombose and thereby cause secondary softening beyond the thrombus.[2] Of these two possibilities thrombosis is considered to be by far the more common occurrence. For the purposes of this paper we are omitting from consideration the cerebral manifestations of emboli, and of hemorrhage and thrombosis which may occur as the result of poisons such as lead and alcohol, or from infections such as pneumonia, typhoid fever, scarlet fever or syphilis, or from blood dyscrasias such as leukemia and polycythemia. Our interest is focused only on the most common cause of cerebral accidents, the arteriosclerotic cerebral artery. It is thought that the association of two essential factors are necessary for the development of a cerebral hemorrhage, cerebral arteriosclerosis and arterial hypertension.[3] Hypertension alone will apparently not cause hemorrhage from a normal vessel, and likewise, it is doubtful that the arteriosclerotic artery itself will hemorrhage if the blood pressure is normal. Certainly the danger of cerebral hemorrhage threatens throughout the life of the hypertensive patient, and there is needed only a transient increase in pressure incidental to sudden or unusual exertion, excitement or anger to initiate the hemorrhage. It is possible that vascular spasm secondary to a sudden increase in pressure may play a part in initiating the hemorrhage.[4]

Any vessel of the brain may be the site of vascular insult, but the lenticulostriate artery is so frequently involved that it was called by Charcot the "artery of cerebral hemorrhage." The usual location of the hemorrhage is the basal ganglia, particularly in the region of the internal capsule. The further back the hemorrhage occurs in the posterior limb, the more likely there is to be a disturbance of sensation. If the fibers of the optic radiation immediately behind the internal capsule are involved, homonymous hemianopsia will result.

[1] Willison, G. W.: The Heart in Middle Life, *Jour. Ind. State Med. Assc.*, 1941, p. 57.

[2] Musser: Internal Medicine, Philadelphia, 1938, Lea and Febiger, p. 1325.

[3] Fishberg: Hypertension and Nephritis, Philadelphia, 1934, Lea and Febiger, p. 585.

[4] Boyd: Pathology of Internal Diseases, Philadelphia, 1935, Lea and Febiger, p. 721.

The clinical manifestations of an acute cerebral hemorrhage or apopletic stroke are familiar to all. The patient may have previously complained of symptoms commonly associated with cerebral arteriosclerosis such as dizziness, headache, anxiety, fullness and pressure in the head, and there may have been a few days of premonitory symptoms such as transient dysarthria, aphasia or dysesthesia. The symptoms following the hemorrhage can be divided into two groups: first, the acute and general manifestations which depend on the suddeness and size of the hemorrhage, and second, the local or focal signs which are due to the loss of function of the part of the brain affected.[5] The severity of the general manifestations will depend upon the type of lesion, while the focal symptoms will depend upon its localization. The immediate result of hemorrhage is usually a loss of consciousness. Typically it is sudden in onset and deepens rapidly. The patient usually lies quietly, has a flushed face and has a quiet, slow respiration. The respiration may occasionally be stertorous or Cheyne-Stokes in type. The pupils may be small, normal or dilated; they are frequently unequal; they do not react to light; and with deep coma there is bilateral loss of corneal sensation. If the coma is not so deep, the corneal reflex is abolished only on the side of the paralysis, that is, on the side opposite the lesion in supratentorial hemorrhages.[6] Frequently there is conjugate deviation of the head and eyes to one side, the patient looking toward the side of the hemorrhage and away from the paralyzed side. The musculature is flaccid, and the deep and superficial reflexes are abolished. Swallowing is impossible, and the patient is usually incontinent. The urine will contain albumin and frequently sugar, the presence of the latter being due in many cases to the hemorrhage itself. The face on the paralyzed side is flattened out, the labial fold is less marked, the palpebral fissure is wider, the cheek may blow out with expiration, and saliva may drool from the sagging lip. The limbs on the paralyzed side are more flaccid, have less tone, and drop heavily if lifted. The Babinski and Hoffman signs may be positive on that side.

Coma may last from a few hours to several days. If there is intraventricular hemorrhage, it continually deepens, the neck becomes stiff, paralysis and rigidity of all the extremities increases, convulsive and shivering movements of the extremities may occur, the pulse becomes slower, respiration becomes irregular, and the patient usually dies within the first twenty-four hours. Usually, however, the coma lessens and the patient passes into the stage of paralysis. The appearance of the hemiplegic patient needs no description.

If the cerebral accident is on the basis of a thrombosis instead of a hemorrhage, the onset of the attack is usually not so abrupt, and it may not be accompanied by a loss of consciousness. Coma, if present, is usually not so deep, or it may appear following the paralysis and gradually deepen. The paralytic signs set in and then may gradually increase or may recede and return. Because of the diffuse cerebral arteriosclerosis the patient is more likely to exhibit such symptoms as dizziness, insomnia, irritability, poor memory and headache. Mental deterioration is more common than in cases of hemorrhage.

The prognosis in any cerebral accident depends upon the extent, location and type of the lesion and on the age and general condition of the patient. Large hemorrhages and intraventricular hemorrhages usually are rapidly fatal. Steadily rising fever, deep coma lasting more than twenty-four hours, or gradually deepening coma give a grave prognosis. It is stated that in the case of hemorrhage about 30% will die in the first twenty-four hours, 60% within a week, and 80% in the first month. With thrombosis only about one half as many die in the first week, but about the same per cent die within the first month.[7] In a recent study on the duration of life after cerebrovascular accidents, it was concluded that sudden death following such accidents was the exception, and that most patients will live at least two hours. If death occurs within twenty-four hours, hemorrhage is more likely to be responsible, while thrombosis is more common in those who live longer than a month. With regard to thrombosis it was noted that the survival period is approximately fifteen times as long as after hemorrhage, that the white patients survived longer than the Negro, and that women survived longer than men.[8] With regard to recovery from the paralysis it can be said that the earlier there is evidence of some return of power, the better the prognosis for improvement. The lower extremities will recover more power than the upper, and the proximal segments of the upper more than the distal. As the muscle tone increases, spasticity and contractures will develop in a majority of the cases, especially in the arm. As previously noted, many patients, especially those with diffuse arteriosclerosis, will show some mental disturbance.

The differential diagnosis in cases of cerebral hemorrhage or thrombosis requires the consideration of all of the diseases which may cause stupor or coma. Injury, diabetic acidosis, hyper-insulinism, post-epileptic stupor, Stokes-Adams syndrome, poisoning of various kinds, uremia, brain tumor or brain abscess, alcoholism and general paresis may all simulate a cerebral accident. The history of the attack, the examination of the patient, and examination of the blood, urine and spinal fluid will assist in differentiating these conditions. The

[5] Wechsler: Text-Book of Clinical Neurology, Philadelphia, 1933, W. B. Saunders Co., p. 338.

[6] Cecil: Text-Book of Medicine, Philadelphia, 1934, W. B. Saunders Co., p. 1428.

[7] Wechsler: Text-Book of Clinical Neurology, 1933, p. 356.

[8] Newbill, H. P.: Duration of Life After Cerebrovascular Accidents, *Jour. Amer. Med. Assoc.*, 1940, p. 236.

differentiation between hemorrhage and thrombosis is sometimes more difficult. Hemorrhage is generally sudden in onset while thrombosis is slow. The spinal fluid pressure is usually increased in hemorrhage, and the fluid is more likely to be bloody or xanthochromic. In thrombosis the majority of the cases will show a normal or only slightly elevated spinal fluid pressure, while the fluid will only rarely be blood tinged or xanthochromic.[9] In any patient with a bloody spinal fluid, the possibility of a spontaneous subarachnoid hemorrhage must be considered. In this condition the onset is usually sudden and is accompanied by severe headache, pain down the neck and into the arms, frequent vomiting, rapid development of a stiff neck, a positive Kernig sign, and an increasing coma. Typical hemiplegia is not present, but weakness may be noted on one side of the body. The spinal fluid is under increased pressure and is bloody and xanthochromic.

Treatment of the apoplectic attack is essentially symptomatic and requires good nursing. The patient should be put to bed with the head slightly elevated. If the respiration is stertorous, a prone position may give relief. The position should be changed frequently as a prophylactic measure against pneumonia and bed-sores. Venesection, an enema, and an ice bag to the head may be of some value. If the patient is restless, sedatives will be necessary, either by hypodermic injection or by rectal administration. Care should be used in attempting to give anything by mouth, and tube feeding may be necessary if it is felt that the patient must have nourishment. As early as possible, probably during the latter part of the first week, passive exercise and massage should be started. If the patient has any power at all, he should be encouraged in practicing active motion. He should be in bed for at least three weeks with even the mildest "stroke." During convalescence, iodides are usually started. Certainly the patient should be warned against over-work, excitement, worry, anger and sudden exertion.

347 West Berry Street.

[9] Bodansky and Bodansky: Biochemistry of Disease, 1940, New York, The Macmillan Co., p. 606.

SELENIUM MAY BE HEALTH HAZARD IN FOODS GROWN IN SOME STATES

The possibility that selenium, a nonmetallic element resembling sulfur, may be injurious to man when obtained from various foods produced in certain areas of this country, is pointed out by M. I. Smith, M.D., Washington, D. C., in *The Journal of the American Medical Association* for February 15 in a review of recent field and laboratory studies of chronic selenium poisoning. The element already is a recognized industrial health hazard.

"The early investigations of H. G. Byers indicating the natural occurrence of selenium in certain soils of some of the western states," Dr. Smith says, "and its wide distribution in plants available to man as well as to the lower animals brought the problem to the attention of public health investigators. More recently selenium compounds have also come into use in insecticide sprays on the West Coast, and this has added to the hazard from the naturally occurring variety. Moreover, O. A. Beath and his co-workers have shown that inorganic selenium compounds such as are used in insecticide sprays, may be absorbed by certain special plants which in turn may serve as converters into organic compounds more or less readily assimilable by plants used in animal and human nutrition."

He says that the element has been found in such foods as cereal grains, vegetables, milk, eggs and meat in western regions. Though selenium poisoning in man from ingesting the element in food has never been definitely established, it has been found that human beings may absorb the element in amounts sufficient to cause harmful effects in experimental animals. Thus the possibility of poisoning in man exists, and the problem should receive further attention.

A partial explanation for the lack of definite symptoms in man is suggested by studies cited by Dr. Smith, showing that considerable amounts of protein in the diet of animals apparently give protection against selenium poisoning.

Investigations in eastern Wyoming, southern South Dakota and northern Nebraska have revealed a more or less universal absorption of selenium among the rural population. However, symptoms that might be considered indicative of selenium poisoning could not be definitely found. The incidence of vague symptoms of ill health, particularly those suggestive of stomach and liver disorders, appeared to be sufficiently high to indicate the probability of cause and effect. Later laboratory investigations, however, failed to indicate any diagnostic value in chronic selenium poisoning from the usual type of stomach analysis.

Analysis of the urine of cows and horses with symptoms of "alkali disease," an ailment of farm animals traceable to selenium poisoning, revealed a selenium content well within the limits of that found in the urine of human beings from the same or similarly affected areas. The amount of selenium excreted in the urine bears a definite relation to the amount ingested, and considerable amounts are retained in the tissues.

While investigations to date have not determined the probable dosage of selenium that would be safe for man and the effects that might be expected if this amount were exceeded, they do throw some light on this problem, Dr. Smith says. It has been ascertained that in areas where selenium is found naturally in foods human beings may excrete from 10 to 200 micrograms of selenium per 100 cubic centimeters of urine. According to laboratory investigations, cats and rabbits with an excretion level of 100 to 200 micrograms of selenium per 100 cubic centimeters may show no bad effects for many months under favorable nutritional conditions, but with deficient diets they may suffer from impaired liver function. Animals given larger doses of selenium suffer from intermittent loss of appetite, occasional vomiting and still greater impairment of liver function.

HELPING THE INJURED WITH PHYSICAL THERAPY

NATHAN H. POLMER, M.D.*
NEW ORLEANS, LOUISIANA

The treatment of injury is not only a medical and surgical problem, but an economic one as well. The aim of treatment in accident cases is to restore an injured individual to his normal functional ability for work or play as quickly, as easily, as painlessly and as economically as possible. Those who have had the opportunity to observe the effects of correctly prescribed, rightly timed and efficiently administered physical therapy treatments have come to the conclusion that physical therapy is of definite benefit in the treatment of injury.

As physical therapy physicians we are called on to treat many forms of injury such as recent fractures, sprains, dislocations, and tearing of muscles and ligaments. We are also called on to treat the late results of injury such as stiffness of a limb due to the formation of adhesions in or around a joint. The experienced physical therapist knows that physical therapy is of great value when properly employed. He has seen physical therapy result in definite harm when used in the wrong way, and he also knows that physical therapy may do no good at all when used at the wrong time. Many years ago a philosopher said that there is a time and a place for everything. Similarly there is a time and a place for every physical procedure used in the treatment of injury.

Injury occurs to an individual who reacts in a way peculiar to himself. Let us consider for a moment how the individual responds to the injury. When a fracture occurs, there is not only a break in the bone but there is damage to the muscle and soft tissues surrounding the bone. Hemorrhage occurs from the torn blood vessels. Muscle spasm sets in. Swelling takes place and causes further pressure on nerves and blood vessels. Nature immediately attempts repair by trying to remove the wreckage and organize or absorb the clot. Nature's efforts are not always successful and scar tissue may form, resulting in adhesions and stiffness.

Keeping these facts in mind, we shall consider how and when to apply physical therapy after injury. The first physical agent we employ is rest. For a sprained joint or a fractured bone, rest means adequate splintage or immobilization in a good position.

In putting the injured part to rest, the joint should be immobilized in a position for maximal function. The force of gravity should be used as an aid to recovery and not as a detriment to use. Bearing these points in mind we reason that the shoulder should be fixed in abduction, the elbow in flexion, the wrist in dorsiflexion, the knee in extension, and the ankle at a right angle to the leg. In these positions stiffness is less likely to result in increased disability.

For the first few days after injury, maintaining the part in a slight degree of elevation is of value. This elevation uses the force of gravity to aid in the lymphatic and venous return. The degree of elevation should be consistent with the angle of circulatory efficiency, that is the degree of elevation should not be such as to interfere with normal blood inflow. Elevation may be accomplished by raising the foot of the bed in fractures of lower extremity, by resting the part on pillows, by slings or suspension.

During the period of rest or immobilization that is required for broken ends of a bone to "knit," certain other changes take place. Muscle atrophies, fatty tissue decreases, ligaments shrink, and blood flow diminishes. Scar tissue can easily form at this time and produce adhesions which result in stiffness of the joint.

The purposes for the application of physical therapy then become evident. Physical therapy is used as an aid to absorb the hemorrhage, relax the muscle spasm, relieve the pain and discomfort, reestablish normal circulation, preserve muscle function, maintain the patient's morale, secure his active cooperation in active use of the part at the right time so as to more quickly arrive at restoration of function.

The principal physical therapy agents used for these purposes are heat, gentle massage, movement, electrical muscle stimulation, and exercise.

As a form of thermotherapy we shall consider cold. Cold is negative heat. Heat applications bring about a dilatation of the superficial vessels and a hyperemia of the skin. Therefore, in certain cases heat may increase hemorrhage and ecchymosis.

During the first few hours after injury, cold applications are a better procedure until extravasation into the soft parts has ceased. Cold may be applied as cool or cold compresses and baths. As ice bags or direct applications may cause reflex muscle spasm, cool compresses are generally preferable.

After the injured part has been put at rest and properly bandaged, the second period of physical therapy treatment is directed toward maintaining the circulation and preventing wasting of muscles. Heat is now used in the form of hot applications, hot baths, hot soaks, the electric baker or the newer form of short wave diathermy. Short wave diathermy produces a deep, even heating of the part and helps relieve pain, relax spasm and increase circulation. It is a valuable form of heat application but is not magic. It is a form of physical

* Professor of Physical Therapy, Louisiana State University Medical School. President of the American Congress of Physical Therapy.

therapy treatment and is of value only when used in conjunction with other forms of treatment.

Without going into controversial issues as to the wave length, type of apparatus or electrodes, it will suffice to say that any short wave apparatus approved by the Council of Physical Therapy will give efficient heating. The technic used in the application of the electrodes is of greater importance than the electrodes themselves. Depending on the anatomy of the part, one may use a variety of applications.

Heat should be followed by massage of a gentle smooth stroking type. This type of massage should not be confused with that commonly given in gymnasiums, athletic institutions or beauty parlors. Massage should never hurt. Massage will never rub stiffness out of a joint, but massage and heat together will help relax muscle spasm and improve circulation, thereby making it easier for the patient to move the joint to a greater degree with less pain.

Until such time as the patient can actively use the injured part, passive exercises and electrical muscle stimulation help in maintaining muscle tone but active movement by the patient is encouraged as soon as possible.

An important aid in restoring the injured to duty again is active cooperation on the patient's part. He must do his part. Simple forms of occupational therapy are now used. These consist in prescribing light tasks which will require the patient to use the injured part. Such tasks may consist of light carpentry, painting, gardening or even golfing.

The physical therapy treatment given in the doctor's office lasts thirty minutes to one hour. If the patient does nothing to help himself during the ensuing twenty-three hours, much of the effect of this treatment will have been wasted.

In concluding, I wish to emphasize that a great part of the physical therapy treatment for the injured consists of such simple measures as heat, gentle massage and exercise which the physician prescribes for the patient to use very much as he prescribes a specific diet for the diabetic. No matter how costly, how beautiful, elaborate or complicated it may be, there is no machine made that will take the place of intelligence. By properly applying simple physical therapy treatments at the right time by trained technicians under adequate medical supervision, much can be accomplished in lessening the pain, increasing the use and shortening the disability period of the injured part.

921 Canal Street.

THE COUNCIL ON PHYSICAL THERAPY

A BRIEF REVIEW OF ITS SCOPE AND ACCOMPLISHMENTS

HOWARD A. CARTER, B.S. in M.E.*
CHICAGO

For fifteen years the Council on Physical Therapy of the American Medical Association has been actively engaged in critical analysis of physical therapeutic methods and apparatus. Although the Council was created in 1925 by a resolution of the House of Delegates, it did not begin to function until 1926. Successful employment of physical therapeutic methods in the rehabilitation of wounded soldiers at the close of the World War brought its value forcibly to the attention of the profession. Those physicians who were actively engaged in the rehabilitation of the wounded soldier became supporters of physical therapy while those not having had such experience were not easily convinced of its merits.

The first two or three years of the Council's existence were devoted to self-education of its members; to formulating rules of procedure for conducting its business; to studying certain physical phenomena used in physical therapy; and to preparing official rules and requirements for the consideration of apparatus. Requirements for the acceptance of apparatus and instruments coming under its purview have been compiled and published. As the responsibilities of the Council grew, it found that it was obliged to solicit the help of individuals skilled in special fields. Hence, special groups were established to aid the Council in its work, such as the Consultants on Audiometers and Hearing Aids, the Consultants on Ophthalmic devices, Consultants on Artificial Limbs, and Consultants on Electrocardiographs. A small booklet, "Apparatus Accepted" containing products which have been considered and accepted can be obtained by writing to the Secretary of the Council on Physical Therapy, 535 North Dearborn Street, Chicago.

Although a meeting is held once a year at headquarters, the major portion of the business of the Council is conducted by means of a fortnightly bulletin. The Council has considered resuscitating apparatus, positive and negative pressure apparatus, infrared and ultraviolet generators, orthopedic appliances, radium and radon products, roentgen ray equipment, exercising machines, hearing aids, audiometers, and ophthalmological devices, anesthesia and oxygen equipment, metabolism-testing instruments, and medical and surgical diathermy equipment.

There has been a steady growth of acceptance

* Secretary of the Council on Physical Therapy of the American Medical Association.

of physical therapeutic measures by the general practitioner since the Council was established. Specialists in physical therapy have prepared articles, some of which have been adopted by the Council and published in *The Journal of the American Medical Association*. A large portion of these special articles has been incorporated in the Handbook of Physical Therapy. This handbook is in its third edition. In this volume one will find discussions of the therapeutic uses of heat, massage, exercise, medical and surgical diathermy, ultraviolet and infrared radiation, roentgen rays, hydrotherapy, and colonic therapy. The Council hopes the profession will not lose sight of the broader aspects of physical therapy, for much can be accomplished by simple methods and intelligent management. By writing to the American Medical Association headquarters, specifications for making simple homemade apparatus may be secured.

Extension instruction in physical therapy for the practitioner is encouraged by the Council. Postgraduate courses are now available in several medical schools for those who wish additional training. Emphasis is placed on the instruction sponsored by medical societies. Cooperating with its group of consultants on education, the Council is able to suggest qualified speakers on physical therapy subjects of general interest. Names of speakers in various localities may be obtained by writing to the Secretary at headquarters. Films on physical therapy subjects are available and are loaned to societies, the only expense being the return mailing.

The Council on Physical Therapy consists of twelve men: Drs. Harry E. Mock, Surgeon, Chicago; Eben J. Carey, Anatomist, Milwaukee; Anthony Cipollaro, Dermatologist, New York; W. W. Coblentz, Physicist, Washington, D.C.; John S. Coulter, Physical Therapist, Chicago; A. U. Desjardins, Radiologist, Rochester, Minnesota; Frank D. Dickson, Orthopedic Surgeon, Kansas City, Missouri; W. E. Garrey, Physiologist, Nashville; Frank H. Krusen, Physical Therapist, Rochester, Minnesota; Frank R. Ober, Orthopedic Surgeon, Boston; Ralph Pemberton, Internist, Philadelphia; and H. B. Williams, Physiologist, New York. Doctors Morris Fishbein and Olin West, Chicago, are members ex officio.

The members receive no compensation, and the profession owes much to them because of the large amount of work entailed to which they give much time and untiring effort.

ABSTRACTS

PECTIN IS AMONG NEWEST BY-PRODUCTS OF THE CITRUS FRUIT INDUSTRY

One of the newest by-products of the citrus industry is pectin, the powder used so extensively in preparing jellies and jams, which has formerly been derived chiefly from apples, John Fassett Edwards, M.D., Easton, Pa., says in the February issue of *Hygeia, The Health Magazine* in an article discussing citrus fruits. The white rind between the skin and pulp of these fruits supplies large amounts of pectin, he says.

Other by-products of the citrus industry are oil of orange and oil of lemon, both of which are used to flavor soft drinks, candy and other foods.

Dr. Edwards points out that although some kinds of oranges have green skins even when mature, "because of a consumer preference for an orange with an orange colored skin, it has become customary for distributors to dip mature, green-skinned oranges in a harmless orange dye to give them a uniform color. The dye used is a coal-tar by-product and has been certified by the Federal Food, Drug and Cosmetic Administration as harmless and suitable for this purpose. But the administration has ruled that all fruit thus dyed must be labeled 'color added.' And while the juice from oranges with partly green skins may not be as sweet as the juice from oranges that are naturally orange skinned, they contain equal amounts of vitamin C.

"Citrus trees are planted with geometrical precision, with from 75 to 100 trees to the acre. Sufficient room must be left for proper irrigation, picking, spraying, etc. It usually costs more to raise lemons than it does to produce oranges. The per acre yield of oranges is about 207 packed boxes, while lemon trees produce only about 197 packed boxes."

In a discussion of the history of these fruits, Dr. Edwards says: "In the Yuen dynasty the Chinese so much appreciated the use of lemons in maintaining sound health that they burst into poetic ecstasy over their beloved *li-mung*—from which stems the 'lemon' of our language. Literally, *li-mung* means fruit beneficial to a pregnant woman. During pregnancy, the dietary need for lime salts increases.

"Oranges and lemons were carried, probably by the Arabs, from China and India to the Mediterranean region about the time of the Crusades. There they soon became the principal fruits, and centuries later, when the Moors invaded Spain, they too carried oranges with them. But when or how the edible citrus fruits reached the Americas is unknown."

RADIO REGULATION SHOWS HOW DEFENSE INFLUENCES CIVILIAN ENDEAVORS

The many fields of civilian endeavors affected by the defense needs of a nation are well illustrated in a recent regulation established by the British government and commented on by *The Journal of the American Medical Association* for February 15.

The Journal says that it recently "called attention to the discussions now going on between members of the medical profession, including representatives of the Council on Physical Therapy of the American Medical Association, and government officials relative to suitable manufacture or control of high frequency apparatus which interferes with radio reception. In Great Britain it has been found desirable in the prosecution of the war to place governmental restrictions on the use of such apparatus. It is now necessary in that country for any person with such apparatus in his possession to have a permit from the postmaster general for its operation. Apparatus included under the control is diathermy and electromedical equipment which uses valves or spark coils. The unauthorized possession of such apparatus constitutes an offense under the defense regulations. The purpose of control is obviously to reduce the number of sources of electrical disturbance so that proper use of radio as a defense mechanism may continue."

THE SURGICAL APPLICATIONS OF PHYSICAL MEDICINE*

EDWIN N. KIME, M.D.
INDIANAPOLIS

Recent newscasts from Europe emphasize the destructive nature of mechanized warfare. They also reveal the vital importance of humane control in the field of technology. Modern machines function with impersonal efficiency, without fear, conscience, fatigue, or failure, subject only to the judgment of the human operator.

Medical science has made marked advances in the evolution of physical devices for the transmission of kinetic energy through the human body. The dynamic forces of heat, light, and short-wave irradiation are often employed with comparative safety to normal tissue and at the same time, when carefully selected, can wage an effective blitzkrieg against invading micro-organisms and neoplastic disease. The manual power of the surgeon has been amplified far beyond his capacity in the horse and buggy days.

The practice of medicine is not yet an exact science. Biophysical reactions cannot be measured with mathematical precision. The mechanical millenium in therapeutics has not yet arrived. Monumental failure is inevitable unless all therapy is subject to critical supervision, clinical judgment and control.

The modern machine is indispensable in our daily life and work. On the other hand, it may develop into a Frankenstein monster when it is ruthlessly operated without ethical responsibility and discrimination. Medical men must retain that individual judgment which is the heritage of our profession. We must avoid that regimentation of thought and action which follows machine rule, whether in politics or in therapeutics. The logical solution of the problem requires that the profession give more attention to technology. The physician should have a clear cut conception of the biophysical laws whereby therapeutic apparatus is operated. He can then appreciate its capacity for both good and evil and can intelligently control its use.

Modern physical therapy had its birth during the first World War. Physical medicine still finds its large field of usefulness as an aid to the surgeon in the restoration of function after traumatic injuries. As a general rule, the earlier such physical measures as heat, massage, and exercise are begun, the more rapid will be the convalescence. The procedures are often so simple that they may be carried out by the nurse or even by the patient himself. On the other hand, they are often so technical that special equipment, operated by a trained physical therapy technician, is required. In either instance, the treatment should always be prescribed and supervised by the attending physician.

In the physical care of the hospital patient, simple physical measures are routine. In addition to the daily bath and alcohol rubs, change of posture and limited massage or exercise are of benefit to the bed patient. Early postoperative activity is a prophylactic against hypostatic pneumonia and perhaps also against embolism. Bed rest is *not* synonymous with log-like inactivity. Rigid immobility is better avoided when possible. Removable bivalve splints provide ready access for external heat, diathermy, massage and graduated exercise, and thereby prevent atrophy and adhesions.

An even simpler exercise can be used with advantage by almost every bed patient. This consists of volitional intermittent rhythmic muscle contractions which do not actually produce joint motion. The activity is stopped short of pain, and whatever soreness or fatigue follows the exercise should wear off in thirty minutes. The same general rule applies to the reaction after massage, active and passive exercise, or after graduated muscle contractions given by the physical therapy technician in the after care of fractures and in peripheral nerve injury. A common cause of failure in the management of muscle nerve injuries is the lack of proper orthopedic support and overtreatment of the weakened or paralyzed muscle group.

Peripheral vascular disease, acute vascular occlusion, arteriosclerotic and diabetic gangrene may often be helped by passive vascular exercise, aiding in the medical and surgical management. The suction-pressure machine (socalled glass boot) and the device for intermittent venous compression (intermittent Biers hyperemia) are advocated by many and also opposed by not a few authorities on vascular disease. All are agreed that mechanotherapy of any type is hazardous in the presence of infection and thrombo-phlebitis. In simple acute vascular block, continuous treatment is recommended. Eight hour a day treatments by the glass boot, supplemented by additional intermittent venous compression at night, is effective in the subacute cases in which collateral circulation can be established. Symptomatic improvement will generally be manifested after the first day in those patients who are responsive to the treatment. At least fifty hours of passive vascular exercise should ordinarily be given before final appraisal of the value of the method can be made. It is hardly necessary to add that bed rest, diet, insulin and other medical treatment must be employed according to indications in each individual case.

Many other modalities are available to the surgical patient. Time will not permit detailed account as to the use of infrared radiation, whirlpool baths, sitz baths, fever cabinet, Elliot treatment and other

* Read before the Indianapolis Medical Society, May 28, 1940.

measures. Probably the most generally useful to the industrial surgeon is the whirlpool bath which is a simple device providing hot water under constant motion. It is of value in the treatment of amputation stumps and traumatized extremities, especially the hand. The patient is encouraged to employ active motion while the part is immersed.

A brief word should be said as to the personnel and the equipment of the hospital department of physical therapy. The American College of Surgeons requires a medical director, registered physical therapy technicians, and standardized equipment which has been endorsed by the Council on Physical Therapy of the American Medical Association. Efficiency of personnel is more essential than variety of equipment although both are important.

In the foregoing we have dealt with the restoration of function in the surgical patient. Now consider those physical agents which transmit kinetic energy for bactericidal effect and for the ablation of neoplasms.

1. *Ultraviolet Radiation* (2550 A.U.) is a powerful germicide but is of no specific value in neoplastic disease. The cold quartz generator is the most efficient bactericidal lamp. Hot quartz uviarcs and, to a much less degree, carbon arc lamps are also indicated in the treatment of infected wounds, burns, decubitus ulcer, surgical tuberculosis, suppurative osteomyelitis, erysipelas, and in the preparation of large granulating surfaces for skin grafts. Quartz light has recently been advocated for the sterilization of the air in operating rooms.

Ultraviolet radiation is an important constituent of the solar spectrum. Consequently it acts superficially within the top layer of the skin. Its rather poor penetrative power may be enhanced by the technic of lens pressure dehematization of the skin overlying subepidermal infection. The water cooled uviarc may be thereby successfully employed in the abortion of paronychia, furunculosis, naso-labial carbuncle, and to aid resolution of infection in suprafascial pleiades. Deep seated infections are best treated by x-ray and surgical drainage.

2. *Radiation by X-Ray and Radium.* The exact biophysical mechanism by means of which these powerful penetrative agents produce tissue destruction and bacteriostasis is largely unknown. There is no doubt, however, as to their clinical effectiveness. Our remarks will be limited to radiation in the field of oncology, wherein remarkable progress has been made in the past few years. The factors of histogenesis and radiation response have been so well correlated that the problem of radiosensitivity should be considered by the surgeon in every neoplasm which comes to his attention. Many neoplasms which were formerly classed as radio-resistant and unsuited for radiation may now, with improved methods, be safely treated and some resolution obtained. Nevertheless, the present trend among many surgeons to retire from the field of oncology is a tragic mistake. No one appreciates this any better than the conscientious radiologist who has been obliged to give highly caustic radiation to a resistant growth which would have been better treated had it been surgically excised and its histopathology evaluated prior to irradiation.

Neoplasms vary widely in cell type and in degree of anaplasia, as well as in their location and extent. Both histologic and clinical factors are required for diagnosis, prognosis and choice of methods for treatment. Although the biologic virulence of a growth cannot always be predetermined by its histology, oncologists uniformly agree that biopsy provides the correct diagnosis and forecasts the probable radiation response in the greater percent of cases. "Irradiation, either by radium or roentgen rays, acts by producing obliterative endarteritis, by producing a diffuse sclerosis of the stroma surrounding the tumor cells," and by its destructive effect upon the neoplastic cells. The ultimate results depend upon many factors of which the following are important: radiosensitivity of the tumor cells, vascularity of the growth, and the nature of the tumor bed.

Radiosensitivity is either inherent, transient or acquired. Every cell has its characteristic inherent radiosensitivity, which varies widely among the different cells, both normal and neoplastic. Radiosensitivity is largely determined by the life history of the cell. Those with short life cycles—viz., blood cells, especially lymphocytes, sex cells, and endothelial cells—are highly radiosensitive in about the order given. Connective tissue cells have longer life cycles and are less radiosensitive, while tumors developing from nerve cell origin are most resistant to radiation. Cells which are well differentiated and show evidence of a tendency toward normal functional activity are radioresistant. Those which are less differentiated and reveal more embryonic tendencies are radiosensitive. Low grade neoplasms are generally found to be radioresistant; some form of surgery may be required for their complete extirpation, unless caustic radiation is employed. High grade lesions are as a rule radiosensitive and a good response to radiation (but not necessarily a good prognosis) is to be expected. Mixed cell patterns may require combined methods of surgery and radiation.

Transient radiosensitivity is the cellular response during certain phases of the cell's life history. A cell is most radiosensitive during mitosis and this radiosensitivity decreases with the age of the cell. It is largely upon the basis of this finding that the modern technic of daily fractionated highly filtered radiation is based.

Acquired radiosensitivity is an alteration in the original or inherent radiosensitivity of the cell. It not only decreases with the age of the cell, but also is brought about by several factors, most important of which is diminished blood supply. Previous irradiation, which causes obliterative endar-

teritis and sclerosis, reduces the blood supply and tends to make a tumor more and more resistant.

Our time will not permit further consideration of the factors of histogenesis and radiation response, nor the clinical factors as to location of the growth, constitution of the tumor bed, evidences of local extension into bone, cartilage, regional nodes and distant metastases. All of these factors must be given weight by every physician who is consulted about the disposition of any lesion suspected of being cancer or of being potentially malignant.

Indiscriminate application of caustics without biopsy control have no scientific basis. Lacassagne[1] more than ten years ago maintained that caustic radiation is apt to make the lot of the patient worse instead of better. "There are many caustic agents both chemical and physical, but the radioactive caustic is the most dangerous, the most difficult to control, the most expensive of caustics and there is no good reason to prefer it to others."

Perhaps the greatest objection to caustic measures in the treatment of neoplasms is the untoward routine surface destruction of the growth without individual appraisal of its life history based upon accurate histological diagnosis. Indiscriminate application of chemical caustics or the so-called "electric needle" to superficial neoplasms is widely used and more abused than caustic radiation. Modern radiology is based upon histogenesis and every scientific radiologist recognizes the importance of histologic diagnosis and control.

It is generally agreed that a biopsy should be made upon every case of suspected cancer at some stage in its management, and preferably with the initial treatment if it is at all safe to do so.

In addition to his function in the clarification of the diagnosis by means of the biopsy, the surgeon should also share with the radiologist the responsibility for the radiation reactions. Some tumors cannot be controlled by either or both surgery and radiation without hazard to adjacent normal structures. Severe epithelitis, radio-epidermique and even mild radionecrosis may follow that dosage of radiation which is necessary to produce involution of the growth. This applies not only to massive single exposures of unfiltered radiation, but also commonly follows the daily, fractional dose technic pioneered by Coutard and which, with modifications, is being more generally employed in modern radiology. In either event, the personal equation and the wishes of the patient and family must receive consideration. They should be informed in advance to expect such reactions. The radiologist is entitled to generous moral support from the attending physician and the surgeon should be willing to cooperate in the after-care and management. The surgeon may be called upon to resect residual cancer which has become radiation fast and along with it infected, painful ischemic scar and radionecrotic tissue. Modern radiology has made such progress within recent years that we now see a diminishing number of such cases. Even so, there are few radiologists with extensive oncologic practice who do not occasionally experience such grievous sequelae. By means of electrosurgical technic, the surgeon can often relieve the patient and thereby repay the radiologist for the many instances in which he has taken over the stupendous task of postoperative irradiation in cases which the surgeon has failed to cure.

3. *The Electric Cautery*, or actual cautery, is a time-honored device now rapidly becoming archaic and replaced by the more efficient technic of electrosurgery. The actual cautery operates on the principle of the soldering iron. It chars and burns from without inward. Cutting effects are minimal, with much less flexibility of control, and it is followed by greater tendency to scar than is electrosurgery.

5. *Electrosurgery*. The term was coined by Harvey Cushing a decade ago to include fulguration, desiccation, coagulation and endothermic resection. Cushing and others have emphasized that electrosurgery is different, is more definitely surgical, is more flexibly controllable, and is more efficient than the electric cautery. Nevertheless, some operators use the actual cautery by preference in the field of dermatology and for cervical lesions. On the other hand, there are many competent operators who routinely employ electrosurgical technic but whose records are inaccurate because they erroneously use the term "electro-cautery." Cushing clearly differentiated electrosurgery from the actual electrocautery: "Electrosurgery is certainly much more than just another form of cautery."

Space does not permit a detailed account of the biophysical principles and the histologic effects of the passage of high frequency currents through the tissues. Suffice it to say that fulguration, desiccation and coagulation are, in the order given, increasingly effective thermodestructive effects due to the resistance of the tissues to the passage of spaced oscillations of radio-frequency. Prior to the Cushing era of electrosurgery, these methods were the only ones available. Just prior to Cushing, George Wyeth (1923) perfected the first practical cutting current utilizing the continuous oscillations from radiotron tubes. Cushing, in collaboration with Bovie (1928), developed and popularized the electrosurgical unit by means of which either or both tissue searing and cutting currents could be administered or blended together and passed through the same operative instrument. The modern spark-gap electrosurgical unit which is now available to the surgeon in the operating room of every up-to-date hospital is a development of the original Bovie machine.

Prior to the Cushing era, the pioneers in electrosurgery employed rather crude technics of fulguration and desiccation in the treatment of bladder tumors and for the removal of skin blemishes.

[1] Lacassagne: Radium Institute of Paris, *Radiology*, 13:95, 1929.

Doyen met with some success in the management of large fungating malignant growths by the use of the deeply penetrating heat destructive technic of electrocoagulation.

The pioneer work of Cushing and the prestige which his endorsement gave to the field of electrosurgery as an effective aid to the surgeon, especially in the ablation of cancer, has been followed by widespread adoption of the method in many surgical specialties. Electrosurgery is now widely employed in:

1. *Neurologic surgery.* Brain surgery. Electrosurgical unit indispensable.

2. *Urology.* Prostatic resection, now widely employed, utilizes electrosurgical technic.

3. *Gynecology.* Electrosurgical biopsy; electrosurgical resection of redundant cauliflower growth in preparation for radium application; also in the office management of many minor lesions of the cervix, urethra and vulva.

4. *Proctology.* Electrosurgical biopsy for polyps and small malignant growths. Removal of anal cancer. In hemorrhoids, fissures and fistulae, electrosurgical technic is employed by proctologists in varying degree.

5. *Stomatology.* Electrosurgical biopsy and removal of precancerous and low grade cancer from lip, buccal mucosa, the gingiva, hard and soft palate, and anterior two-thirds of the tongue. Leukoplakia, papilloma, mucous cysts, submucous fibromata, epulis, and low grade squamous epithelioma are common lesions readily managed by electro surgical excisional biopsy.

6. *Otolaryngology.* Electrosurgical biopsy of nasal polyps, and tumors of the tonsil, pharynx, and from the vocal cords. Electrocoagulation of tonsils is widely employed by some as a substitute for surgical enucleation. At its best, the method is tedious, expensive, and seldom completely effective for the removal of the tonsil. At its worst, the method is hazardous when inexpertly applied. It may be recommended for removal of tonsil tabs. In the surgical treatment of cancer and as a complement to radiation, electrosurgical technic has been established for the treatment of cancer in the nasal accessory sinuses, external ear, and intrinsic cancer of the larynx via laryngofissure.

7. *Ophthalmology.* Retinal detachment. Minor lesions of the eyelids. Exenteration of the orbit in extensive radio-resistant cancer.

8. *General surgery.* Electrosurgery is often used as an aid in mastectomy, in the severance of intra-abdominal adhesions, and in a variety of operations for cancer.

9. *Dermatology.* Desiccation may be used for a wide variety of skin lesions. Electrosurgical excision for biopsy is the method of choice for all skin lesions suspected of cancer. This technic has been reported by the essayist and has been routinely employed during the past decade upon several thousand small localized neoplasms. We have found the method satisfactory in 98% of 392 malignant epithelioma which have been followed through the five to ten year period. The same technic has been described by Ward and Geschickter under the term *electrosurgical excision* for biopsy, and also by Max Cutler under the term *therapeutic biopsy.* Its advantages are multiple. The method may be employed on any comparatively small neoplasm (less than 3 cm. in diameter and 1 cm. depth) which is readily accessible. Local anesthesia is always employed. The growth is completely excised by the cutting current and the base sealed by hemostat coagulation. The tissue excised *en bloc* is suitable for histologic study. Further treatment by radiation or surgery may be employed when indicated.

Wide and deep removal of melanoblastoma by electrosurgical technic is the treatment of choice among most oncologic authorities. Since this is true in the management of one of the most dangerous neoplasms, the logical conclusion follows that all readily accessible new growths of less virulent potentiality should be given the benefit of this effective and scientific method.

Electrosurgical biopsy is the method of choice for pigmented nevi. Pigmented growths are rather radio-resistant. It should be remembered that some lesions, e.g., certain types of rodent ulcer, appear to be pigmented whereas biopsy reveals no true intracellular pigmentation present. Such lesions respond well to radiation. Unless the radiologist has been provided with a biopsy, he may draw an erroneous conclusion as to the effectiveness of radiation in pigmented growths, which is not justified by the facts. On the other hand, radiation not infrequently fails (10-20%) in cases in which the clinical diagnosis of basal celled cancer seemed obvious. McKee has emphasized that routine biopsy of basal celled cancer reveals cell nests of squamous cell cancer in the same percent of cases in which radiation has failed to bring about resolution. Basal celled cancer is the commonest form of human cancer. It occurs with greatest frequency about the face and head. It is generally believed to be a highly radiosensitive growth. For this reason, radiation has been widely employed as the method of choice for superficial lesions of the face and head. In the light of our experience, based not only upon efficiency as to cure but also in consideration of the ultimate cosmetic results (if cosmetology is granted to be an important criterion as to method of treatment in cancer), electrosurgery with biopsy compares favorably with any other method.

10. *Radiology.* The radiologist will find electrosurgery not only a complementary agency to radiation, in the treatment of lesions for which caustic radiation would have to be used, but also as an agency which permits safe and satisfactory biopsies. In addition, it may be used in the removal of post radiation keratoses, telangiectases, areas of

localized radionecrosis, and low grade squamous epitheliomata which develop in old radiation scars.

CONCLUSIONS

1. We have considered the surgical applications of physical medicine from two points of view: (a) Methods which are helpful in the restoration of function; (b) Physical agencies which deliver kinetic energy for bacteriostasis and for the ablation of neoplastic tissue.

2. Therapeutic machines function with impersonal perfection. Their efficiency depends chiefly upon the human equation, viz., technic and proper selection of the indicated agency.

3. Therapeutics depends upon accuracy of diagnosis. Biopsy is essential in the diagnosis and treatment of neoplastic diseases. Electrosurgical excisional biopsy is curative in a large percent of small, localized, readily accessible new growths, after which radiation may or may not be required according to indication. When it is needed it may be more intelligently employed.

4. Electrosurgery as an aid to classic operative technic, and as a complement to scientific radiology has been established as a valuable addition to the armament of the surgeon. We must not forget that electrosurgery is surgery. It should be employed as surgery and in no other way.

DISCUSSION

Don D. Bowers, M.D., Indianapolis: These papers concerning various phases of physical therapy have been highly instructive. There is no doubt that these measures, properly applied, can favorably influence the course of disease in many instances. If we do not use them as indicated to our patient's advantage, the omission is to our discredit.

Many distinguished surgeons have for some time past and are now advocating extensive use of electrosurgical technic. The method possesses distinct advantages and the field of application is widening. The proper application, however, requires training and practice, and the most experienced surgeon cannot hope to use the method without becoming familiar with the fundamentals.

In the field of gynecology, electrosurgery may be used frequently. Accessible growths of the urethra, vulva, vagina, and cervix may be excised for biopsy as mentioned by Doctor Kime. Cervical "electrotomy" or socalled "conization" of the cervix is well established as having advantages over other methods in treating chronic cervicitis. I am convinced regarding the safety of this method as a clinic or office procedure after having used it in more than five hundred cases. Complications producing morbidity are extremely rare if one applies the method properly, and the end results compare favorably with those obtained by any other method.

In cancer treatment, the cooperative efforts of surgery, radiology, and pathology are necessary and in many instances electrosurgical management should be given preference because of advantages over other methods. Nothing could more poorly serve the interests of the cancer patient than the maintenance of partisan methods of thought regarding therapy, yet anyone who observes many cancer patients must sadly admit that cooperative efforts are frequently neglected.

MEDICAL ASPECTS OF PHYSICAL THERAPY*

EDWIN L. LIBBERT, M.D.
LAWRENCEBURG

Physical therapy is defined as the treatment of disease by various physical measures or forms of physical energy. This symposium* was undertaken with the idea of refreshing the minds of those who use physical therapeutic procedures now and to acquaint others with their possible values. A prescription for the employment of any physical therapeutic procedure should be made just as in a prescription for any form of drug therapy. One uses a vehicle in order to make the basic drug more palatable, a synergist to enhance its action. So in order intelligently to use any one agency, one should have a knowledge of the correlative value of all other agencies.

Among the physical measures that have been found both by clinical experience and by laboratory research to have certain therapeutic value when appropriately prescribed may be included: (1) heat, in the form either of hot packs, hot water bottles, electric pads, radiant heat lamps, diathermy and short wave diathermy, hot baths, hot compresses, hot sprays and a number of combinations of electrical, radiant and hydrotherapeutic measures for producing heat, or of artificial fever produced by hot air, hot water, high frequency currents and other physical means; (2) massage, such as stroking, kneading, percussion, friction and vibration, as well as stretching, pulling and corrective movements; (3) therapeutic exercises, including passive or relaxed movement, assistive movement, active movement, active resistive movement, corrective and therapeutic games and training in correct body mechanics; (4) hydrotherapy, including thermal packs, douches, sprays, baths, contrast baths, whirl-

* Read before the Indianapolis Medical Society, May 28, 1940.

pool and other special baths, under-water exercise tanks and therapeutic pools; (5) radiant energy, either natural such as in heliotherapy or sunlight therapy, or artificial, such as is produced by air and water cooled mercury arc lamps, carbon arc lamps, radiant heat lamps, infra-red generators and other special devices for the production of various forms of artificial irradiation including radium and roentgen rays; (6) electricity in the form of galvanic, faradic and sinusoidal currents and high frequency currents (conventional and short wave diathermy); (7) mechanical measures utilizing pressure and suction machines and mechanical hydrotherapeutic and electrical devices, and (8) occupational therapy, both functional and non-functional forms, giving exercise by both diversional and purposeful types of work.[1]

For purposes of discussion we have grouped these agencies as mechanical, chemical, and thermal according to the effect produced upon the human body.

The mechanical group includes massage, muscle training, postural exercise, occupational therapy, hydrotherapy, static wave discharge, faradic current and sine wave, suction and pressure treatment of peripheral vascular disease.

Massage is seldom, if ever, used by itself, usually with some form of heat. The type of massage employed depends upon the effect desired and ranges from the very mild friction produced by a stroking motion of the fingers known as effleurage, through the more vigorous motion that affects the deeper muscles which is known as petrissage. Massage increases local circulation and improves the tone of the part treated. It should always be used in post fracture treatment combined with muscle training and postural exercise. Heat and massage together are the most effective preliminary measures used in preparing joints for active movements. Fractures, sprains, stiff joints, anterior poliomyelitis, peripheral nerve injuries, certain types of neuroses are typical conditions which call for massage, while malignancy, acute phlebitis are definitely contraindicated.

Occupational therapy is of such importance that many of our hospitals have occupational therapeutic departments separate from the physical therapy department, which is advisable. The patient concentrates on the task assigned him and forgets that he is actually exercising. He is often assisted to regain his ability to earn a livelihood after leaving the hospital, though still crippled. Therapeutic exercise may be either active or passive and comprises the use of scientifically supervised movements of the body to restore diseased or injured tissue to its normal state.

Hydrotherapy, either cold or hot, has the same physiologic effect on the body as any other method of applying cold or heat. The various forms of hydrotherapy such as the Scotch Douche, needle-showers, etc., are not widely used either in practice or in the average hospital. The end result is that of massage produced by the constant movement of a stream of water particles. A whirlpool bath is a most valuable aid in certain injuries of the arm and leg, such as injuries of ligamentous structures, and non-healing ulcers of traumatic origin commonly seen about the ankle with or without associated osteomyelitis. This equipment may be readily made of a copper wash boiler and two pieces of ½-inch pipe, connected to your water faucet with a rubber hose. The water in the bath should be of uniform temperature preferably around 105° to 115°. The application of hot or cold wet packs with or without Epsom salts or aluminum acetate or other medication has been used successfully by all of us.

The static wave discharge produced by a modification of the Windhorst machine is a very valuable agency in the treatment of sprains and muscle strains. Unfortunately, it is not widely used because the equipment takes up a great amount of room and is impractical in this climate since the air within the cabinet must be kept perfectly dry or the energy will not be built up. Faradic current is an induced current produced by one or two dry cells and an induction coil. It will produce muscular contraction when brought in contact through suitable electrodes with any part of the body provided the nerve supply is intact. The muscle is kept in a state of continuous or tetanic contraction as a result of this stimulus, and should, therefore, be used very cautiously in order not to destroy the normal muscle tone. It is used to stimulate muscles in which the normal tone is weakened but with no destruction of nerve supply.

Probably the most important use of the faradic current is in determining the reaction of degeneration in muscle nerve injuries. In this instance it is used in combination with the galvanic or direct current. The faradic current is effective only in the event the nerve supply is still present in the affected part. Normal stimulation with the negative pole of the galvanic current produces a greater contraction than stimulation with the positive pole. In complete destruction of the nerve supply the reaction of degeneration is reversed, that is, there is a greater contraction produced by the positive pole than by the negative pole. In making this test then, one determines the activity of the nerve response by means of the faradic current and the degree of muscle response by means of the galvanic current. The galvanic current has been modified by mechanical changes in order to produce a rapid change in the cycle from positive to negative, such current being known as the sinusoidal; this current is then further modified by the use of eccentric cams to produce an alternation in waves of varying intensity. The rapid sine wave or rapidly alternating galvanic current is frequently used in the

[1] Council on Physical Therapy; Report of the Committee on the Present Status of Physical Therapy. *J.A.M.A.*, August 22, 1936, Vol. 107, pp. 584-587.

treatment of sprains and recent muscle injury, and should always be a part of the treatment of paralysis if one is careful in its application. Sciatica is very often benefited by a combination of heat, positive galvanism for its sedative effect, and rapid sine wave for its massage-like effect in improving circulation. Many cases of visceral atony often receive benefits from heat and rapid sine wave.

The galvanic or direct current is employed in physical therapy. It is derived from a battery composed of two dissimilar elements which, when connected to each other or to an interposed conductor, result in a flow of electrical energy from one terminal to the other. The action of the energy derived from each pole is directly opposite to the other. The positive pole produces an acid reaction, a sedative effect when applied to an irritated human tissue, and also it produces a coagulation necrosis. The negative pole, on the other hand, produces an alkaline reaction, stimulation rather than sedation and a liquefactive necrosis.

The galvanic current has the property of ionizing or breaking up chemical compounds into their component parts which is made use of in the industrial field in electro-plating and in the medical field in the various forms of zinc, salicylate and mecholyl ionization utilizing a fundamental law of physics that like charges repel like. One may, by using a solution of zinc sulfate on the positive pole, drive the positive zinc ions into the tissues. Zinc ionization is used frequently in the treatment of chronic otitis media and in non-healing sinuses of long standing.

Some of the otolaryngologists use a form of ionization or iontophoresis for the treatment of hayfever. The uses of salicylate radicals in the treatment of rheumatism and recently the use of mecholyl in peripheral vascular disease is open to considerable discussion pro and con. An important feature in the use of any form of ionization is that the solution used should be of relatively high dilution, ½% zinc sulfate, for instance, and a 1 to 500 mecholyl solution.

Ultraviolet radiation has long passed its acme of importance. It has been highly commercialized, extensively studied by physiologists as well as medical investigators, and it is proven to be effective in but a few conditions. There are two forms, the long-wave or air-cooled variety, and the short-wave or water-cooled variety, each with specific effects upon the human organisms. The long wave ultraviolet contains those rays which are found in greatest abundance in natural sunlight but are, of course, more condensed.

In using ultraviolet radiation, one must remember that chemical changes take place within the skin. As a result of the radiation, these chemical changes in the skin may institute changes which take place within the entire organisms. Also certain drugs such as quinine, the sulfanilamide group internally and mercury compounds externally, often produce photo-sensitization, thus making the effectiveness of the radiation more intense. Pigmentation of the skin is of importance in regulating the dosage since blondes are more susceptible than brunettes to such radiation. The indiscriminate use of ultraviolet radiation by both physicians and the laity is to be condemned for the reasons mentioned above.

Ultraviolet radiation in a dosage sufficient to produce a first degree burn is often specific in erysipelas, in properly graduated dosages. It is curative for rickets. It is frequently beneficial for osteo-malacia. Herpes-zoster, commonly known as shingles, has responded readily in our experience to the judicious administration of ultraviolet. Using a dosage just short of a first degree burn and including the entire area involved, we have found that many skin diseases will respond readily to properly administered ultraviolet, but can just as readily be made worse if improperly used. Psoriasis responds to ultraviolet administration applied to the local areas involved, but general radiation will aggravate the condition. Certain forms of eczema are improved readily by localized ultraviolet radiation. Lupus vulgaris yields readily to ultraviolet whereas lupus erythematosis is aggravated.

Properly administered ultraviolet has an important place in skin grafting operations. One uses very short applications, usually the air-cooled type, which will stimulate granulation tissue formation, and there its bactericidal effect minimizes the danger of infection. It should be used both before and after the graft is applied. Long used in the treatment of anemias, the use of ultraviolet in these conditions has declined because of lack of sufficient evidence to prove its value, and because of the use of other measures equally or more effective. However, in many secondary anemias the effect of ultraviolet is beneficial because it improves the general feeling of well-being in a given patient. It is best administered in these instances in the following manner: beginning with a dosage sufficient to produce a mild erythema, treatments administered every second or third day are gradually increased in dosage up to about 15 minutes to both the front and back of the body at a distance about 30 inches. Then radiations are continued at weekly intervals using about 10 to 12 minute exposures.

We have been treating a patient with purpura with ultraviolet radiation for about three years using the above method, treatment being started with the onset of the eruption. Following one or two treatments the eruption ceases to appear and gradually clears up with the treatment being continued over a period of about six weeks. Impetigo responds very quickly to local ultraviolet radiation with or without the combined use of ammoniated mercury or other similar medications. The oft-repeated claims that exposure of the normal person to ultraviolet radiation either increases the tone of

body tissues as a whole, or stimulates metabolism, or tends to prevent colds has not been substantiated.

In the field of radiant energy we find diathermy as the first available spectral energy. Since the advent of short wave diathermy, we must recognize the original high frequency current as the conventional diathermy. This is a rapidly oscillating current of medium high voltage and amperage which when applied to a conductor by suitable metallic plates produces heat by the resistance of this conductor to the passage of the current. The amount of the current or the dosage applied may be accurately measured in terms of 75 to 100 ma of current per square inch of electrode surface. This factor is of importance in treating conditions where the normal sense of heat may be destroyed. Conventional or short wave diathermy may be used in any non-suppurative inflammatory condition where the effect of deep heat is desired, such as traumatic or inflammatory changes in bone, joint, muscles and tendons. While diathermy may be used with clinical benefit in arthritis, particularly gonorrheal arthritis, it is often contraindicated in chronic arthritis. The fact that long wave diathermy does produce vasodilatation can be demonstrated in cases of true sciatic neuritis. In this instance the vascular bed about the nerve is already engorged as a result of the inflammation and the application of diathermy produces an increase in pain due to the increased pressure produced by vasodilatation. Conversely, sciatic neuralgia is usually greatly benefited by diathermy administration. Short wave diathermy is a modification of the original high frequency current in which the body or the part to be treated becomes a condensor and the exact method of heat production is, as yet, unknown. The dosage of short wave cannot be as accurately gauged as in conventional diathermy. It has reached its present position of popularity in great part because of its ease of application. In conventional diathermy, clothing must be removed and the electrodes applied directly to the skin. In short wave the clothing may be left on and also may be applied through plaster casts; however, one must avoid having metals in the condensor field as they will produce hot spots and consequently a burn in this area.

Both the conventional and short wave diathermy are used in fever therapy which is mentioned here only in passing because the subject requires a great deal of discussion. Short wave is quite effective in the treatment of acute bronchitis, acute and chronic sinusitis, and superficial abscesses. Any form of diathermy is contraindicated in those conditions where more simple methods of applying heat gives satisfactory results, any acute suppurative process, over suspected malignant areas, through the abdomen or back during pregnancy and in areas where hemorrhage is a possibility.

The next field of radiant energy according to its wave length is infra-red which may be of the non-luminous type known as the infrared element or as the luminous type known as radiant heat and light. The energy produced by a non-luminous element such as the bathroom heater and the commercial infrared generator produces intense surface heating effects only, but is capable of penetrating the human skin very little below 5 mm. The luminous type produces a much better form of superficial heating, is capable of penetrating 30 mm. beneath the skin surface, and is the type preferred in most every condition where superficial heat is desired. It may be used in any instance where the effect of superficial heat is desired, and is especially favorable in the alleviation of pain in abscess, sprain and muscle strain. It is widely used in the treatment of skin infections.

The use of physical agencies in the treatment of disease bears such an intimate relationship to other forms of therapy, both medical and surgical, that one cannot make individual claims for superiority of one over the other. They are beneficial in many instances, specific in a limited few. They should be used only when and as indicated either primarily or secondarily to other forms of treatment, and then only after a thorough understanding of the pathology of the part to be treated, the physical and chemical characteristics of the energy used, and the effect of that energy on human physiology.

DISCUSSION

E. F. Kiser, M.D., Indianapolis: There is no doubt that we have been negligent in the use of physical methods in the treatment of various diseases. This failure to appreciate the proper place of physical therapy has encouraged and stimulated the development of medical cults. Fortunately, a realization of these facts is wide-spread in the medical profession and rapid strides are being made towards the correction of this outstanding fault. Progress in physical therapy has resulted in the application of these methods to different pathological conditions. We formerly confined the use of heat, massage, diathermy and other physical agents to diseases of the bones and joints exclusively. The important place of alternating venous occlusion and suction and pressure therapy in diseases of the blood vessels has resulted in marked improvement in the outlook for such cases. The recent literature reveals that hyperthermia as an adjunct to sulfonamide therapy in subacute bacterial endocarditis has improved the outlook in some instances in this otherwise hopeless condition.

We are wisely slow in accepting new therapeutic agents but in the case of physical therapeutic measures we have a method which can be regarded as tried and proven in many purely medical conditions. There is no doubt that the use of these agents is rapidly increasing.

REPORT ON 1940 HOSPITAL SURVEY ON PHYSICAL THERAPY*

N. H. PRENTISS, M.D.

FORT WAYNE

The practice of physical therapy, like the weather, seems to be a subject for considerable discussion, but comparatively little has been done about it by the general medical profession. The initial stimulus to scientific evaluation of the uses and abuses of this important adjunct to medicine and surgery, resulting from its effective service during the last World War, has more or less subsided into wishful thinking or downright lethargy. The inevitable result has been its indiscriminate use by untrained and unethical faddists and cultists, who, although they may be weak in anatomy or physiology, are certainly salesmen *par excellence.* Many extravagant cures have been advanced which have proved to be scientifically unsound. Many claims have been so far-fetched as to be downright absurd. Is it any wonder that, all too often, disastrous results have attended its use in conditions for which it was absolutely contraindicated?

The Council on Physical Therapy of the A.M.A., the American Congress of Physical Therapy, and other national groups have been fighting for years to regain control of the practice of physical therapy and place it in the hands of qualified, ethical physicians, where it rightfully belongs, and to remove from it the stigma of quackery. One by one, the various state medical societies have joined in this worthy cause.

In January, 1940, The Committee on Physical Therapy of the Indiana State Medical Association was created. One of the first tasks of this newly formed committee was to institute a hospital survey throughout the state, to determine to what extent, and in what manner, physical therapy was being used by Indiana institutions. The response to this survey was most gratifying and supplied much food for thought. Of the 135 hospitals contacted, only 11 failed to cooperate. This would certainly indicate a growing interest in physical medicine.

An analysis of this survey brings out many points of paramount interest to the medical profession, and supplies a number of valuable clues as to why physical therapy has gained an unenviable reputation in the eyes of many physicians. These points can be discussed but briefly in this paper. For greater detail, we refer you to the statistical report which forms a part of this paper.

HOSPITALS USING PHYSICAL THERAPY

Fifty-three per cent of all listed hospitals in the State of Indiana definitely make use of physical therapy in their institutions. Does this, then, sound as though the practice of physical medicine belongs to the realm of quackery, and is of no scientific interest to organized medicine? Thirty-two per cent of these institutions maintain organized departments of physical therapy, controlled by a director (physician or technician, of which more will be said later), and employing one or more nurses or technicians as assistants. However, 29 hospitals which make use of physical therapy modalities, do *not* maintain departments. A further study of the questionnaires from these 29 institutions reveals that treatments are given, in many cases by registered nurses, roentgenologic technicians, medical technicians, practical nurses, etc., who have had no previous training or other qualifications to fit them for this task. Many of these treatments are given without any supervision whatsoever, or under the nominal direction of the attending physician who himself may be without experience in this specialty. One wonders how many patients treated under such conditions may show little or no improvement, thereby reflecting discredit upon physical therapy. One wonders how many of these patients may have been made infinitely worse by the use of physical therapy, when it was definitely contraindicated.

DIRECTORS OF PHYSICAL THERAPY DEPARTMENTS

A study of the qualifications of directors of physical therapy departments reveals some rather startling features. It would seem that experience is still looked upon as the best teacher, for 25% of these directors are qualified by experience only. In one case, the only qualification given was 35 years of experience in *general surgery!* I am sure most authorities would agree that even one, short, intensive postgraduate course in physical therapy would amplify and broaden this experience immeasurably.

That there is too great a tendency to consider roentgenology as sufficient qualification to practice physical therapy, or to direct departments thereof, is indicated by the fact that 16% of these men are roentgenologists. Of course, it is undoubtedly true that many hospitals find it expedient to place their roentgenologists as *nominal* directors of their departments of physical therapy, thereby saving themselves the expense of employing an additional man, but one wonders what would be the reaction of the medical profession if the tables were reversed, and roentgenology were practiced by a physical therapist unqualified in the use of x-rays, and unversed in the abuses and dangers thereof? What is sauce for the goose certainly should be sauce for the gander.

Thirty-four per cent of these directors are denied the right to recommend the type of treat-

* Report of Committee on Physical Therapy, Indiana State Medical Association.

ments best suited to the needs of the case at hand, and 12% are not permitted to name the charges to be made for the services rendered. Why? If these men are considered sufficiently qualified to direct these departments, is it not reasonable to presume that their knowledge and experience is such that their professional judgment could be and should be relied upon? If not, then who actually makes these important decisions? Technicians? Attending physicians? Nurses? Why appoint a director if no use is to be made of his presumed ability?

TECHNICIANS

The technician problem runs a striking parallel to those discussed in the preceding paragraph, and serves to emphasize the crying need for training and education and the all-too-common error of making use of the "any old port in a storm" attitude. Only 16% of the technicians administering treatments in physical therapy are registered physical therapy technicians, and only 0.6% are registered junior physical therapy technicians. The remainder are registered nurses, medical technicians, roentgenologic technicians, medical gymnasts, etc.

If this paper can but call to your attention the absolute necessity of education and training, more education and training, and *still more* education and training of physicians and technicians engaged in the practice of physical therapy, it will have served a worthy cause.

LOCATION OF PHYSICAL THERAPY DEPARTMENTS

Thirty-seven per cent of these departments are adjacent to or in connection with the x-ray department, which is probably logical enough inasmuch as these two departments are so frequently operated by the same directors and technicians. However, it is quite evident that many hospitals still persist in locating their departments in any available corner, giving no thought to accessibility or to the possibility of future expansion.

ATTITUDE OF HOSPITAL AUTHORITIES AND STAFF

Seventy-five per cent of the hospitals covered report that the attitude of their attending staff and governing authorities towards their department of physical therapy is satisfactory and cooperative. Fourteen per cent state that the general attitude is fair. This certainly would indicate a pleasing future for these departments and for the practice of physical therapy in general.

TYPES OF CASES TREATED

Here we find ourselves confronted with the very obvious fact that many of these departments seem to be "dumping grounds" for cases which have failed to respond to other methods of treatment, without any attempt being made to select only such cases as might reasonably be expected to be benefited. Many of these patients are afflicted with conditions for which physical therapy could be of no possible assistance, and in many cases, conditions in which its use is definitely contraindicated. Here is where the knowledge and authority of a qualified physical therapist, as director of the department, is of inestimable value. Is this condition the result of the mandates of financially interested, higher authority for these departments to be self-sustaining, *or else*?

Twenty per cent report that their departments treat *all types* of cases. Pneumonia, rheumatism and dermatitis place second at 18%. Arthritis, erysipelas and general medical and surgical cases place third at 16%. The remainder of the list practically runs the alphabetical gamut, from bronchitis to the removal of warts and moles.

PHYSICAL THERAPY AGENCIES USED

An analysis of the physical agencies used in all hospitals in this state reveals a marked preference for so-called "machine therapy," to the detriment of massage and the simpler methods of producing heat. The Council on Physical Therapy of the American Medical Association states—"In the opinion of the Council, apparatus therapy occupies 10%, whereas the use of therapeutic exercise, massage and the application of simple methods of heat, play a much more important part, at least 90% of the total of physical therapy." Our survey reveals that 90% of all hospitals in this state use ultra violet light, and that 58% use short wave diathermy, whereas, only 43% use massage and 36% simple bakers. This situation typifies the average man's fascination for any mysterious, intricate and eye-catching "gadget," and too, furnishes additional proof of the well-known lack of sales resistance of most professional men. Although it is admittedly true that electrical equipment and various mechanical devices are essential to the practice of physical therapy, we should not lose sight of the fact that many treatments can be given, with most gratifying results, at a comparatively low cost, and with a minimum of equipment, when a properly qualified physical therapist is available. Even the most expensive electrical or mechanical device is of no use in the absence of a trained and experienced operator.

One very serious situation has been revealed by this survey. One institution, *not* maintaining a department of physical therapy, reports that it administers fever therapy, these treatments being given by a *practical nurse*, and seemingly without any supervision whatsoever. It has been well established that, of all types of physical therapy treatments in use today, fever therapy is undoubtedly the most dangerous of all. Every leading article on this subject has emphasized the fact that fever therapy should be administered only by well organized and well trained teams, under close supervision of a specially qualified physician.

RECOMMENDATIONS

The recommendations received in this survey indicate a growing tendency to recognize the prac-

tice of physical therapy as a specialty, and the American Congress of Physical Therapy as a specialist's society, to be included, as such, in the directory of the A.M.A.; and to make the establishment of departments of physical therapy one of the minimum requirements for hospital recognition and approval by the Council on Medical Education of the A.M.A., and by the American College of Surgeons.

Additional recommendations stress the need for more adequate education and training for physical therapists and technicians.

Recommendations were also made to promote legislation to prohibit the practice of physical therapy by faddists, cultists, beauty parlors, and athletic departments of schools, colleges, Y.M's., and Y.W's.

CONCLUSION

One cannot study the statistical analysis of this survey, without being impressed with certain, undeniable facts:

1. The education and training of physicians and technicians, into whose hands the future of the practice of physical therapy shall lie, is of the utmost importance. Without study, without scientific experimentation and the careful evaluation of proofs, without the proper training of every man and every woman who enters this field, physical therapy can never give its best to the medical profession.

2. Organized medicine, hospital authorities and laymen *must* be brought to realize that physical therapy is *not* quackery, but a recognized branch of ethical medicine, and that the beneficial effects of any treatment is dependent not upon the beauty or intricacy of the apparatus being used, but upon the *training, the knowledge, and the skill of the operator.* The machine is insentient, and cannot think, but the operator *can and must.*

A complete, statistical analysis of this survey is appended.

ANALYSIS OF 1940 HOSPITAL SURVEY ON PHYSICAL THERAPY

Number of hospitals contacted	135
Number of answers received	124
Number of hospitals not answering	11

1. DO YOU MAINTAIN A DEPARTMENT OF PHYSICAL THERAPY?

Yes	43
No	49
No, but do use some physical therapy modalities	29
No answer	14
Total	135

2. IS YOUR DIRECTOR OF PHYSICAL THERAPY: (From 43 answering YES to No. 1.)

(a) A physician? Yes	35
(b) A technician? Yes	7
No answer	1
Total	43
(c) On a straight salary or commission?	
Salary	25
Commission	3
Salary and commission	1
Contract basis	1
No remuneration	4
No answer	9
Total	43

3. DOES YOUR DIRECTOR OF PHYSICAL THERAPY HAVE

(a) Special qualifications in this line of work?	
Yes	27
No	10
No answer	6
Total	43
(b) If so, what are they?	
Radiologist	7
Graduate, Walter Reed Hospital	1
Experience only (number of years not specified)	7
Study and special interest	3
Postgraduate at Michael Reese	1
Roentgenologic Technician and Registered Nurse	1
Member of The American Physiotherapy Association	2
Registered Nurse	1
Graduate, National College of Massage and Physiotherapy, Chicago	1
15 years experience	1
14 years experience	1
10 years experience	1
Postgraduate work (where, not specified)	2
Fellow of The American Congress of Physical Therapy	2
4 months at St. John's Hospital, Springfield, Ill.	1
Instructor in Physical Medicine, I. U. Medical School	1
35 years experience in general surgery	1
None	1
No answer	8
Total	43
(c) Staff rank?	
Yes	27
No	8
No answer	8
Total	43
(d) The right to name charges to be made?	
Yes	19
No	5
No charges made	11
No answer	8
Total	43
(e) The right to recommend the type of treatment to be used?	
Yes	27
No	15
No answer	1
Total	43

4. WHAT ARE THE QUALIFICATIONS OF YOUR TECHNICIANS?

(From the 43 hospitals having Departments. Many have several technicians, hence these figures will not correspond with the other figures.)

(a) Registered Physical Therapy Technicians	7
Registered Junior Physical Therapy Technicians	3
Roentgenologic Technicians	8
Medical Technicians	6
Physician	1
Registered Nurse	13
Compliance with Civil Service requirements	1
Registered for Fever Therapy	1
Graduate, Harvard Physical Therapy course	3
Graduate, Arnold College of Physical Education	2
Member of the American Physiotherapy Association	2
Medical Gymnast	1
Experience only	13

None 2
No answer (from Hospitals having Departments. 43.) 7

(b) Are they registered?
Yes 46
No 8
Pending 1
(These figures represent the number of technicians, and NOT the number of hospitals answering.)
No answer (from the 43 Hospitals having Departments) 15

(c) As what?
Registered nurse 13
Roentgenologic Technician 8
Physical Therapy Technician 7
Jr. Physical Therapy Technician 3
Medical Technician 6
Physician 1
No answer (from 43 Hospitals having Departments) 22
(Figures in this question do not match, due to discrepancies in individual answers to questions.)

5. WHERE IS YOUR DEPARTMENT OF PHYSICAL THERAPY LOCATED WITH REFERENCE TO OTHER SPECIAL DEPARTMENTS? (43 hospitals)

With the X-Ray Department 16
First floor 11
With surgery and Laboratory 2
In the basement, with the Laboratory 1
Adjacent to Occupational Therapy 1
In the Orthopedic Department 1
Adjacent to, and accessable to other departments 2
In the Laboratory room 1
In Acute Neuro-Psychiatric Service 1
No answer 7

Total 43

6. WHAT IS THE ATTITUDE OF YOUR HOSPITAL AUTHORITIES AND ATTENDING STAFF TO THIS DEPARTMENT? (43 Hospitals)

Good 32
Fair 6
No answer 5

Total 43

7. WHAT TYPES OF CASES DO YOU TREAT IN THIS DEPARTMENT?

(These figures are taken from the 43 hospitals having Departments, all of which answered this question. This gives a composite of the variety of diseases treated in order of their frequency.)

All types 9
Pneumonia 8
Rheumatism 8
Dermatitis 8
Arthritis 7
Erysipelas 7
General Medical and Surgical cases 7
Lumbago 6
Trauma 6
Neuritis 5
Bronchitis 4
Wassermann-fast Syphilis 4
Vascular Diseases 4
Complications of Gonnorrhoea 3
Fractures and Dislocations 3
Sinusitis 2
Malnutrition 2
Complications of Syphilis 2
Stubborn cases of Gonorrhoea 2
Orthopedics 2
Infective and post-infective cases 2
Neuro-Psychiatriac cases 2
Tuberculosis 2
Colds 1
Paralysis 1
Multiple Sclerosis 1
Prostatitis, acute and chronic 1
Chorea 1
Ear, nose and throat infection 1
Pediatrics 1
Cases requiring muscle re-education as Polio; Trauma; post-surgical transplants; Post-Diphtheria; Scoliosis; Torticollis; Distrophies; Volkmans; Brachials, etc. 1
Ultra Violet Ray, with special reference to Ear, Nose and Throat; burns; pre and post operative cases 1
Removal of warts and moles 1

8. MODALITIES USED IN THE 43 HOSPITALS HAVING DEPARTMENTS.

Ultra Violet Ray 43
Infra Red Ray 40
Short Wave Diathermy 31
Massage 31
Cold Quartz Ultra Violet Ray 27
Bakers 24
Inductothermy 23
Conventional Diathermy 22
Low Volt Currents (Galvanism, contractile currents, etc.) 21
Hydrotherapy 19
Suction-pressure 11
Fever-therapy 9
Elliott Treatment 8
Occupational Therapy 6

MODALITIES IN THE 29 HOSPITALS HAVING NO ORGANIZED DEPARTMENTS, BUT USING SOME FORM OF PHYSICAL THERAPY.

Ultra Violet Ray 22
Infra Red Ray 16
Short Wave Diathermy 11
Conventional Diathermy 8
Inductothermy 8
Cold Quartz Ultra Violet Ray 4
Hydrotherapy 3
Occupational Therapy 3
Bakers 2
Suction-pressure 2
Fever Therapy 1
Elliott Treatment 1
Massage 0

9. WHAT RECOMMENDATIONS DO YOU HAVE FOR IMPROVING THE STATUS OF PHYSICAL THERAPY?

Answers received 15
No answers 120

1. More liberal legislative appropriation for experimentation and instruction in Physical Therapy. Ability to secure more reliable and better trained technicians.
2. Recognition of Physical Therapy as a specialty.
3. Recognition of the A.C.P.T. as a specialistic society and inclusion as such in the Directory of the A.M.A.
4. That established Departments of Physical Therapy be made one of the minimum requirements for hospital recognition and approval by the Council on Medical Education of the A.M.A. and the A.C.S.
5. All Hospital Physical Therapy Departments should be directed by a specially qualified physician, who shall have staff rank, the right to fix charges and to recommend the type of treatment to be used.
6. More qualified Physical Therapy Technicians should be made available.
7. Legislation to prohibit the practice of Physical Therapy by faddists, cultists, quacks, gyms and athletic departments of schools and colleges, Y.M.'s and Y.W.'s, beauty parlors, etc., and place it in the hands of qualified M.D.'s.
8. More informative demonstrations before medical groups.
9. More stress on treatment of fractures by Physical Therapy.

10. Better training for technicians and better equipment for hospitals.
11. Physical Therapy Technicians to be registered from an A-1 school.
12. Education of undergraduates and graduate physicians, nurses, laity, as to the status of Physical Therapy as an ethical branch of scientific physical medicine.
13. Directors of departments and hospital medical staffs should keep informed as to improvements and new methods of treatment and strive to secure more adequate results.
14. Oppose vigorously all attempts to exploit Physical Therapy in an unethical manner.
15. Maintain standards of education in Physical Therapy as set forth in the A.C.P.T., and the A.P.A.

SPECIAL COMMENTS

1. Apparent inconsistencies have cropped up in this analysis, some due to clerical errors, others to evasive and ambiguous answers to the questionnaire, making such answers impossible of accurate evaluation.
2. Many questions of great importance have been suggested by this survey and are more particularly enumerated in the recommendations herein later set forth.
3. The fact that only eleven hospitals out of a total of one hundred and thirty-five failed to answer this questionnaire, would indicate a healthy interest in Physical Therapy.
4. There is too great a tendency to consider Radiology as sufficient qualification to practice Physical Therapy or to direct departments of it. One wonders what the reaction of the profession would be if the tables were reversed and Radiology be practiced by Physical Therapists, unqualified in X-Ray work.
5. Too many directors of Physical Therapy departments are denied the right to recommend the type of treatment best suited to the case.
6. It is all too evident that too few technicians have had sufficient training and education in the practice of Physical Therapy.
7. The type of cases treated rather indicates a tendency to make Physical Therapy departments a "dumping ground" for cases which have failed to respond to other methods of treatment, without any attempt being made to select only such cases as could reasonably be expected to be benefited.
8. Insufficient use is being made of simple methods of producing heat. Too much emphasis is being placed on "machine therapy."

RECOMMENDATIONS

After this analysis has been fully evaluated, a further survey of the subject is recommended, such subsequent survey to cover among other things, the following points:

1. Twenty-nine hospitals having no departments of Physical Therapy make use of some Physical Therapy modalities. How many treatments are given in such hospitals by unqualified technicians and without proper supervision?
2. How many directors of Physical Therapy departments are employed full time; how many only part time?
3. What kind of practice do part time directors follow; do they specialize in Physical Therapy exclusively or only in connection with some other specialty; do they engage in general practice, etc.?
4. How many directors are Fellows of some recognized Physical Therapy Association, such as The American Congress of Physical Therapy, etc.?
5. How are these directors regarded by the profession and the laity in their respective communities?
6. How many of these directors are actually "bosses" of their departments, qualified to **administer** treatments and how many are only figure-heads, dependent upon a technician more qualified and better trained? In other words, are they selected because of their special qualifications or because the hospital board feels that an M.D. degree carries more prestige than a P.T.T., and are willing to accept any M.D. available, so long as they have a trained technician to do the actual work?
7. How many technicians are employed in each Physical Therapy department, how many of them devote full time to this work and how many of them divide their time with the department of Pathology, Radiology, etc.?
8. What percent of Physical Therapy in these departments is devoted to Massage, Hydrotherapy, Electrotherapy, etc.?
9. What Physical Agent is most frequently used? (Diathermy, Ultra Violet Ray, Massage, etc.) Question No. 8 in the present survey refers to the type of modalities used and not to the frequency of their use and might be misleading. Ultra Violet Ray outfits, which lead the list in point of numbers, have been exploited by commercial houses, while massage is of no financial interest to manufacturers of electrotherapeutic equipment.

ABSTRACT

INDUSTRIAL HYGIENE FOR CIVILIANS EMPLOYED IN NAVY YARDS

Much of the loss of time among civilian employees in navy yards due to preventable illness can be greatly reduced if the problem is attacked by an annual physical examination of all employees, men requiring curative treatment being referred to their private physicians or to other agencies, Captain Ernest W. Brown, M.D., New York, Medical Corps, United States Navy, declares in an article on "Industrial Hygiene and the Navy in National Defense," appearing in the first issue of *War Medicine*, the new bimonthly periodical being published by the American Medical Association, Chicago, in cooperation with a division of the National Research Council, Washington, D. C.

The inauguration of such a program, Captain Brown says, would obviously require a heavy increase in medical staffs "but it would be a profitable investment by naval industry in the saving of man power for national defense."

The importance of industrial hygiene has been recognized by the Navy, Captain Brown says, and it now is listed as a specialty of the naval medical officer along with other specialties outside the purely clinical fields, such as aviation medicine, submarine medicine and chemical warfare medicine. His paper outlines the administration of industrial hygiene in navy yards, which are the chief industrial units of the Navy.

Some conception of the extent of the problem of industrial hygiene in relationship to the naval establishment is obtained from Captain Brown's statement that "the combined industrial force of all navy yards is now approximately 130,000. In view of the building program of naval construction it is estimated that this number will reach 150,000 in 1941. If made inclusive of all shore stations it will probably be close to 180,000." He also points out that there is an adjunct to this force involving the commercial navy ship building plants and says that a conservative estimate of the combined industrial personnel of all such plants on both the east and the west coast will reach a peak of 100,000.

DELIRIUM ASSOCIATED WITH CATARACT EXTRACTION*†

DAVID A. BOYD, Jr., M.D.
MARY A. NORRIS, M.D.
INDIANAPOLIS

The fact that a mental disorder may complicate cataract extraction, especially in the aged, is neither a new nor a rare observation. Such cases were reported by Dupuytren as early as 1819 and occasional cases or series of cases have been reported since. It has been estimated that mental disorder occurs as a complication of cataract extraction in 2½ to 3 per cent of cases,[1, 2, 3] some placing the incidence as high as 10 per cent.[4] In view of its relative frequency, it is interesting to note how little attention this topic has received in standard textbooks of ophthalmology.[5, 6, 7, 8] It would appear that a complication which can defeat the most skillful surgical procedure, leave the patient in worse condition than before operation, or even endanger life, is deserving of more consideration. The authors wish to report a case of mental disorder associated with cataract extraction and to discuss some of the ophthalmological and psychiatric aspects of this complication.

The literature on this subject is often quite contradictory and considerable confusion has occurred due to the mistaken belief that only one type of mental disorder complicates this operation. As a matter of fact, at least two types of mental illness may occur and the course, symptomatology and prognosis of these are quite different. Various authors have disagreed sharply regarding some features of the syndrome and this has been due largely to the fact that they were discussing different disorders. Some of these observers were reporting cases of transitory delirious reactions due either to emotional stress or a toxic process. These psychoses were usually short in duration, presented extremely disturbed and dramatic behavior and generally eventuated in recovery unless some fatal accident intervened. The other authors were observing cases of senile dementia occurring in aged individuals with impaired central nervous systems, the operation serving as the final precipitating factor. Inasmuch as these two types of mental illness possess little in common, they will be discussed separately.

DELIRIOUS REACTIONS

These are by far the most frequent type of mental disturbance following operation. There is little agreement concerning the cause of the disorder and each of the numerous theories which have been advanced has been discredited by a later author. Earlier writers assigned great importance to supposed hereditary mental instability but this view is no longer accepted. Others maintained that the instillation of atropine caused a drug intoxication but many cases have been reported in which this drug was not used. Still others[9, 10] have advanced the theory that the delirium was due to a uremic intoxication, but in a large majority of cases this conclusion could not be substantiated by clinical or laboratory investigation. Some observers noted a close similarity between the clinical picture of the post-extraction confusional state and delirium tremens and concluded that the habitual use and sudden deprivation of alcohol was an important etiological factor. However, studies of a series of cases have shown that a minority used alcohol in any degree and only comparatively few were excessively alcoholic. Infection of the wound or eyeball has not been seriously considered as a cause of intoxication since it is stated[3] that the area is too small to create a generalized toxemia. It would appear that in a majority of patients it has been impossible to establish intoxication as the major etiological agent in the production of the psychosis.[11, 12, 13, 14, 15]

On the other hand, psychological explanations of the disorder have met with equal criticism. It

* Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the French Lick meeting, October 30, 1940.

† From the Department of Neurology and Psychiatry and the Department of Ophthalmology, Indiana University School of Medicine.

[1] Brownell, M. E.: Cataract deliriums. *Jour. Mich. Med. Soc.*, **16**:282 (June), 1917.

[2] Fisher, Wm. A.: Delirium following cataract and other eye operations. *Amer. Jour. Oph.*, **3**:741-747, 1920.

[3] Parker, Walter R.: Postcataract extraction delirium. *J.A.M.A.*, **61**:1174-1176, (Sept. 27), 1913.

[4] Posey, W. C.: Mental disturbances after operations on the eye. *Oph. Review*, **19**:235-237, 1900.

[5] Spaeth, Edmund: Principals and practice of ophthalmic surgery. Philadelphia: Lea & Febiger, 606, 1939.

[6] Berens, Conrad: The eye and its diseases. Philadelphia: W. B. Saunders Co., 1936.

[7] Torok, E., and Grout, G. H.: Surgery of the eye. Philadephia & New York: 58, 1925.

[8] DeSchweinitz, George: Diseases of the eye. Tenth Edition. Philadelphia & London: W. B. Saunders Co., 1924.

[9] Fromaget: Quoted by Wm. A. Fisher.

[10] Finlay, C. E.: Delirium after eye operations. *Arch. Oph.*, **33**:5-8, 1904.

[11] Preu, P. W., and Guida, F. P.: Psychoses complicating recovery from extraction of cataract. *Arch. Neur. and Psych.*, **38**:818-832, Oct. 1937.

[12] Greenwood, A.: Mental disturbances following operations for cataracts. *J.A.M.A.*, **91**:1713, (Dec. 1), 1928.

[13] Thomas, F. C.: Delirium following cataract operations. *Kentucky Med. Jour.*, **24**:134-143, 1926.

[14] Pfingst, Adolph: Acute delirium following cataract operation. *Kentucky Med. Jour.*, **21**:99, 1923.

[15] Lowe, Geoffrey B.: A case of acute mania following upon operation for the extraction of senile cataract. *Lancet*, **1**:1195, 1922.

has been suggested that the loneliness and isolation of the patient and his dissatisfaction with hospital life were of paramount importance and for this reason Bruns[16] sent his patients directly home from the operating room, reporting 232 cases of cataract extraction without a single instance of mental disorder. However, other ophthalmic surgeons who have attempted to avoid this situation by operating in the patient's home have reported severe psychoses. Bandaging of both eyes with complete exclusion of light has been considered as the most important factor by the majority of writers and similar deliria have been noted in patients not undergoing an operation but who have been placed in totally dark rooms for syphilitic iritis or double iridochoroiditis. Similar psychoses were also observed in prisoners placed in completely dark cells. However, the importance of this etiological factor has been challenged by Kipp[17] who reported eleven cases occurring in patients treated in well-lighted rooms with only one eye bandaged.

These facts suggest that none of these theories is completely right nor wholly wrong. However, these mental disorders may be more easily understood in terms of the total patient and the situation with which he is confronted. Usually the patient is well-advanced in years and often physiologically older than his chronological age. His ability to meet and adjust himself to new situations and problems is diminished and his emotional stability, intellectual powers and psychological margin of safety are often reduced by vascular and degenerative changes in the central nervous system. In some cases, the physiological balance is unstable and any drastic change in the regular routine may produce a mild metabolic intoxication which further increases the susceptibility to mental disorder. During the period preceding surgical procedure many other emotional problems may add to the psychological instability. Family troubles, economic worries and lack of employment may confront the patient while he waits for operation. During this time of visual handicap he thinks of the final outcome with alternate hope and fear and attempts to face the situation bravely. At the time of operation he may appear outwardly calm but in reality is quite tense and apprehensive. Following operation, there is a considerable emotional reaction. The patient tries to lie quietly and follow instructions. Minor physical discomforts, a sense of isolation, fear of blindness and complete dependence upon strangers worry and annoy him. Since his eyes are bandaged, he has only his own thoughts to occupy his attention and when the external world is excluded from vision a sort of dream state is often experienced. Various ward noises come to him which cannot be investigated and checked with his own eyes and his apprehension conjures many meanings to these sounds. He hears loud talking, whispering, laughing and joking and wonders if reference to him is intended and, in his excitable state, he can find personal meaning in all sounds. His anxiety and fear increase and any slight metabolic upset adds to his discomfort and confusion. Unsympathetic handling by physicians or nurses, or terse commands to remain quiet lest the eyes be harmed only further his fear. Finally, he falls into a troubled sleep and suddenly awakes, unable to use his eyes or to orient himself. During the ensuing reaction of panic the patient is further terrified by threatening imaginary voices and horrible visual hallucinations, and the state of delirium becomes established.

Most frequently the onset of the psychosis is during the evening of the second day following operation but may occur at any time during the first week. Prodromal signs of increased irritability, restlessness and occasional lapses into incoherent, wandering speech are often noted. The patient then attempts to tear the bandages from his eyes and appears terrified and bewildered. Marked mental confusion and complete disorientation are usually prominent manifestations. The patient hears imaginary voices threatening him with torture, death or destruction of vision and sees persecutors or horrible animals approaching his bed. Usually the patient interprets the efforts of the nurses to restrain him or administer medication as further persecution and screams loudly for help, making violent attempts to defend himself or to escape. This mental disturbance, usually worse during the night, varies in intensity from hour to hour during the day and short lucid intervals may occur.

The duration of this delirium ranges from a few hours to two or three weeks. In some cases recovery may be abrupt, the patient suddenly regaining mental clarity as if awakening from a bad dream. In others, recovery is more protracted, being characterized by increasingly longer periods of lucidity until psychic equilibrium is reestablished. Usually the patient regains his former state of mental health and has only an incomplete, patchy recollection of the events of his disturbed episode. Although recovery is the rule, exhaustion and intercurrent disease or an accident may cause a fatal termination. It is not unusual for a patient to jump from a window or fall downstairs in an effort to escape his persecutors. The violent struggles and excessive activity not infrequently cause severe damage to the eye. The literature records numerous instances of hemorrhage into the anterior chamber, infection, expulsive intra-ocular hemorrhage, prolapse and in-

[16] Bruns, Henry D.: On the ambulant after-treatment of cataract extraction with a note on postoperative delirium and on striped keratitis. *Ann. Oph.*, **25**:718-723, 1916.

[17] Kipp, Charles J.: The mental derangement which is occasionally developed in patients in eye hospitals. *Arch. Oph.*, **32**:375-387, 1903.

carceration of the iris and delayed restoration of the anterior chamber.[18, 19, 20]

The following case demonstrates the characteristics of a delirium following cataract extraction:

J. H., a white woman, age 61 years, was admitted to the Robert Long Hospital on March 6, 1940, for treatment of impaired vision. Cataract extractions had been performed in April, 1937, and August, 1938, and convalescence from both operations was uneventful. Her psychiatric history was negative except for a severe mental depression in August, 1937, following the death of an only daughter. There were no instances of mental disorder in the family and the patient was considered to be a stable, well-adjusted woman.

Physical examination revealed slight cyanosis of the lips, moderate peripheral arteriosclerosis, slight edema of the ankles and a blood pressure of 158/80. Diagnoses were made of right secondary glaucoma, generalized arteriosclerosis with myocardial damage and poorly controlled moderate diabetes.

On March 13, 1940, cyclodialysis was performed on the right eye without complications. Both eyes were bandaged, the patient returning to the ward in good condition. Convalescence was uneventful until the night of March 18, at which time the patient suddenly awakened and tore the bandages from her eyes. She was confused and frightened and stated that she had a terrifying dream but was easily reassured and returned to bed with the eyes bandaged. Two nights later she again became highly excited and apprehensive and maintained that the nurses had placed a switchboard at the head of the bed and were sending chemicals into her body to keep her awake. She heard voices threatening to harm her, smelled peculiar odors which she believed to be asphyxiating gases and saw hostile people near her bed. Although mentally clear throughout the following day, she again became excited during the night, maintaining that the nurses were persecuting her, that gas was piped into her bed and that enemies were coming through the window to kill her. Throughout the night threatening voices came from beneath her pillow and she saw a woman shooting a man and saw several murdered men lying about the ward. At times she heard the voice of her husband and screamed to him for assistance. The patient was especially incensed because she believed that other women were laughing and making slighting remarks about her character. During the following morning, the patient again became clear and cooperative but possessed no insight and believed that all the events of the preceding night were real. She stated vehemently that she had been abused and mistreated by the nurses during the night and could not believe that she had been experiencing hallucinations. The next night the same excitement, confusion, panic and vivid hallucinosis again occurred, the patient pacing the floor, demanding immediate release. Sedative medication seemed only to increase her mental confusion.

After six days of such behavior, the patient became mentally clear and cooperative. She then stated that for the past eight years she had been under marked mental tension. During this period her only child had Pott's disease and had recently died. Following the death of this daughter, the patient became depressed and was especially concerned because two small grandchildren were left homeless and dependent upon her for care. The patient was afraid that she might lose her vision and be unable to give these children a home. In addition, she realized that she was getting old and that her diabetic condition might terminate her life before she had fulfilled her duty. One of the main reasons for undertaking operation was to save her vision so that she might be able to make a home for the children. When she came to the hospital, she was exhausted and worried and in rather poor physical condition. After operation, she felt well for a few days but worried constantly about the future. Inasmuch as the eyes were bandaged and she was unable to see what was happening in the room, her inner fears soon became transferred to the outside. She could not be sure of the origin of noises, wondered what was meant by remarks which she overheard and became suspicious of various odors about the hospital. Her fear and apprehension increased to the degree that she could no longer bear to have her eyes bandaged and be unable to see what was occurring. The patient recalled that on the second night a physician came to the ward because she was creating such a disturbance. Evidently the question of further sedation was raised and the physician said to the nurse, "I don't dare give her any more." This chance remark confirmed all her suspicions and fears and convinced her that she was being asphyxiated and poisoned. From that moment the hallucinations became vivid and she began to hear strange voices which confused her and, in spite of the bandages, saw enemies coming through the windows.

The patient's improvement began when one eye was uncovered and she was able to see things about her. During the day when she was kept occupied she was friendly and cooperative, but at night when vision was markedly impaired her fear, hallucinations and delusions of persecution returned. No further mental disturbance was noted after the sixth day except for momentary episodes of confusion and she was discharged in good condition, no injury having occurred to

[18] Hulen, Vard H.: Complications in cataract extraction. *Cal. St. Jour. Med.*, **12**:465-468, 1914.

[19] Wood, Casey. Some of the accidents and complications attending or shortly following the extraction of senile cataract. *Ill. Med. Jour.*, **22**:541-550, 1912.

[20] Berry, George: Note on an unusual result of cataract extraction. *Trans. of the Oph. Soc. of the Unit. Kingdom*, **11**:152-155, 1891.

the eye during the excitement. Her whole mental condition and attitude improved as soon as she was again in familiar surroundings.

SENILE PSYCHOSES

The senile psychoses are characterized by progressive mental impoverishment due to a degeneration and dissolution of the highly specialized central nervous tissue. The clinical signs of senile dementia are increasing mental enfeeblement, loss of memory, difficulty in comprehension, irritability, stubborness, selfish egocentric behavior and numerous other manifestations usually described as "childish." This type of disorder occurs after sixty-five years of age and progresses to an advanced mental deterioration. A corresponding physical failure also occurs and signs of age are evident in the atrophic and wrinkled skin, wasted muscles, unsteady gait and weight loss.

The clinical course of senile dementia is usually characterized by slow, progressive mental disorganization although periods of excitement or confusion are not infrequent. The depletion of the physical and mental reserves makes it impossible for the senile patient to meet sudden physiological or psychological stresses and strains without disastrous consequences and episodes of delirium with marked clouding of consciousness and hallucinations may occur. These are usually precipitated by some toxic disorder, head injury, fracture or operative procedure. Frequently the incipient mental deterioration appears to undergo an acceleration following such a delirious episode and the further course is marked by rapid physical and mental failure with early fatal termination.

These facts have an important bearing on the subject under discussion inasmuch as many patients presenting themselves for cataract extraction have already undergone a mild or moderate senile deterioration. In these patients, who withstand even minor changes poorly, the operation with its associated psychological trauma, mild physiological imbalance and the disturbance of the patient's simple daily routine may easily precipitate a senile delirium. The clinical picture of this delirium will not differ greatly from the type previously mentioned but a correct differential diagnosis of the two conditions is important since each has its own course and prognosis. Senile delirium occurs in individuals who have already demonstrated the physical and mental changes of senility. The duration of this disorder may be longer, recovery is usually incomplete, and death often occurs due to exhaustion. Even if the patient recovers from the delirium, the course of the underlying senile dementia frequently undergoes a marked acceleration with rapid physical and mental decline. This is substantiated by Harbridge[21] who reported six cases in which the aged patients became physical and mental wrecks following delirium associated with cataract extraction. He concludes "that the operation for cataract extraction is a far greater shock to the general economy of the aged, even to the point of lessening the length of life, than we are perhaps willing to admit." This author recommends a careful pre-operative evaluation of the patient and warns against operation on patients who are enfeebled but apparently getting along fairly well.

TREATMENT

The best way to avoid the disastrous consequences associated with these mental disorders is to prevent the occurrence of a post-extraction delirium. Experience has shown that these unfortunate mental complications frequently can be prevented by careful selection of patients and thorough pre-operative preparation.[22] Some ophthalmologists[21, 23] have found that it is possible to predict the occurrence of a post-operative delirium in patients who are childish, mentally deteriorated or emotionally unstable and they avoid operation in these cases if the patient is getting along fairly well. In other patients, who are obviously emotionally upset and extremely tensional, it may be well to postpone the operation temporarily until a considerable degree of psychological stability has been regained. An attempt should be made to evaluate the total patient and the situation confronting him rather than just the opthalmological condition. The patient who has obvious emotional problems will be benefitted by a frank discussion of these and by having his fears and apprehensions thoroughly aired before actual operation. Not only will this benefit the patient but it will establish a helpful confidence in the surgeon. The nature of the post-operative treatment should be clear to the patient and he will be much better able to cooperate if a previous discussion has been held and he realizes fully what is expected of him. His physical condition should be at its optimum, sources of intoxication eliminated in so far as is possible, and operative procedure should be postponed until he can be brought into the best physiological balance. Every effort should be made to help the patient approach the operative procedure with composure and confidence.

The post-operative care of cataract extraction demands the best and highest type of nursing care from the psychiatric as well as from the opthalmological standpoint. The nurse who is unsympathetic, tactless and domineering has no place in the care of the patient who requires cataract extraction. One of the best prophylactic measures will be the establishment of confidence in the patient that his nurse is understanding and

[21] Harbridge, D. Forest: Senile cataract extraction followed by certain complications. *Ann. Oph.*, **23**:58-61, 1914.

[22] Bruner, A. B.: The postoperative treatment of cataract. *Ohio St. Med. Jour.*, **31**:501.

[23] Butler, T. Harrison: Insanity after eye operations. *Trans. of the Oph. Soc. of the Unit. Kingdom*, **40**:363-370, 1920.

helpful. In the trying days following operation, the nurse who understands the psychological aspects of the patient will be able to reassure and encourage him and minimize or abolish his fears.

The immediate post-operative care of the cataract patient, from the psychiatric viewpoint, demands that he be subjected to the least possible annoyance. Pain should be relieved and he should be made as comfortable as possible. A distended bladder, a cramped position or an uncomfortable bed may prove to be a nagging annoyance which markedly reduces his capacity to cooperate. Physical discomfort which the patient is unable to relieve because he is immobilized will irritate and annoy him, especially if competent nursing service is not available to carry out the numerous little services which greatly add to his comfort.

Many ophalmological surgeons maintain that bandaging of both eyes is an important etiologic factor in the production of delirium. It is their belief that the mental health of the patient is enhanced by having only one eye bandaged and being in a fairly well-lighted place where he can see and understand what is happening about him. The present authors cannot make a dogmatic statement regarding this but at least it would appear reasonable to uncover the unoperated eye should there be any prodromal signs of a delirious reaction. Another factor of importance in adding to the confusion of the patient is the unwise administration of large quantities of sedatives. Sedative medications frequently produce a mental clouding and confusion and, in elderly individuals who are especially predisposed and in a state of delicate balance, this may prove to be the final precipitating factor bringing about a severe delirious reaction. While it may be necessary to employ sedation during the first few nights, it is wise to remember that injudicious sedative administration may bring about an unwholesome mental confusion. Old people stand sedation poorly and tend to accumulate toxic quantities from small repeated doses.

If a delirious reaction becomes established, immediate treatment is necessary. The most important measure which always must be enforced is constant and continuous supervision in order to avoid a fatal accident if the patient should attempt to escape. This supervision must be unremitting and the fact that the patient is sleeping peacefully does not guarantee that a moment later he will not be in a state of extreme panic and activity. Exhaustion is a factor which often brings about a fatal termination and the physician must make every effort to preserve the patient's general health and nutrition. The judicious use of nightly sedatives may be of considerable value in this situation but it is well to avoid small repeated doses which only confuse the patient and do not bring rest. Again, it is necessary to remember that small repeated dosages, especially of drugs such as bromides and some barbiturates, may have a cumulative effect and bring about a drug intoxication with delirium.

During the day, there usually will be short periods of mental clarity and every effort should be made to utilize these lucid intervals to help the patient understand the unreality of his hallucinations and delusions. The family, friends, and a sympathetic nurse and physician often can do a great deal during these lucid intervals in helping the patient to regain a grasp of reality. Attempts to divert and interest the patient by simple types of occupational therapy not necessitating vision are often of great value. Efforts designed to direct the patient's attention from his pathological self-interest, worry and apprehension may be of considerable value in re-establishing a psychological equilibrium. However, in this situation the surgeon is often confronted by a difficult problem. If he insists that the patient be kept at complete rest in bed, the patient will often struggle and attempt to escape because he fears that he is to be harmed. On the other hand, the surgeon is fearful that allowing him to be in a chair during these more lucid periods may bring about damage to the eye. The decision will depend upon the individual case but it would appear that if violent, uncontrollable struggles are to take place with the patient restrained in bed, it would be the lesser of two evils to allow the patient to sit quietly in a chair occupied with some simple task.

It has long been the experience of opthalmological surgeons that an early return of these patients to their usual environment and routine of life is one of the most beneficial measures which can be undertaken. When they are in the midst of familiar surroundings where they can be self-sufficient and find their way about even without sight, they often regain self-confidence and are able to see the unreality of their previous ideas. An early return to their homes is indicated in these cases but the relatives must be warned of the patient's mental condition and the possibility of a tragic accident so that suitable precautions can be taken.

The prognosis of post-extraction delirium will depend upon the type of mental disorder. If it is a delirious reaction occurring in an individual who has shown no marked signs of previous mental deterioration and the general physical condition is fairly good, the usual prospect is recovery. However, in individuals who have already shown evidence of senile or arteriosclerotic degeneration of the central nervous system, the outlook is much more serious. Even if their delirium clears, an acceleration of the mental and physical deterioration may occur and the patients continue on into a profound dementia. No favorable or unfavorable prognosis should be offered until the physician has made a definite diagnosis of the type of the patient's mental disorder.

Many of these patients still retain fragments

of their delusions of persecution even after recovery from the delirium. In spite of the fact that they appear to have recovered completely, many of them will still harbor a grievance against either the physician or the hospital, believing that they have been persecuted by the physician, nurses or hospital employees. It is well for the surgeon to discuss the matter frankly with the patient, following convalescence from the delirium, so that any lingering doubts may be cleared up. Otherwise, the patient and his family may continue to feel resentful for fancied mistreatment during the hospital stay.

SUMMARY

A psychosis, usually a delirious reaction or a senile confusional state, complicates the postoperative course of 2½ to 3 per cent of patients undergoing cataract extraction. The mental disturbance is usually severe in degree and sometimes is the direct cause of a fatal outcome. This complication must be prevented whenever possible by careful selection and preparation of patients and by avoiding any factors liable to precipitate a mental disaster in an emotionally unstable individual. When these complicating psychological disturbances occur, prompt recognition and intensive treatment are of paramount importance. Unless suitable measures are undertaken at once, a skillful operation may come to a tragic conclusion.

DISCUSSION

Orris T. Allen, M.D. (Terre Haute): The paper covered the subject well and there is little that can be added. It has never been my experience to have any of these cases. I think a very important factor that has not been mentioned is lack of restraint. We are not restraining patients after cataract operation as we did a few years ago. If patients are inclined to be nervous and fretful, I let them sit in a chair when they come from the operating room. I am very careful to have the nurse see that they are made comfortable. I tell the nurse to turn the patient on the left side, if the operation has been on the right side, and make him comfortable. I think that is a factor in lessening this sort of complication.

J. R. Dillinger, M.D. (French Lick): I think Dr. Boyd covered the ground very well, but I feel that each case must be studied as an individual case.

We find patients with whom we have no trouble after cataract extraction, and find others who are nervous and irritable and get pretty wild.

I have tried various sedatives, but sometimes we find patients that even hypodermics or morphine will not control.

I agree with Dr. Allen, that these patients should be moved around, and not kept in one position too long. I believe that means a great deal to these patients.

Carl B. Sputh, M.D. (Indianapolis): I wish to congratulate Dr. Boyd upon the fine presentation of this subject which I am sure was very instructive to all of us.

My method of treating patients in delirium following a cataract extraction is to give a sedative, uncover the unoperated eye immediately and permit the patient to change his position preferably by raising him on a back rest.

I wonder if Doctor Boyd might not tell us of some particular sedative that would be the least harmful for a nervous patient after a cataract extraction.

Dr. David A. Boyd, Jr.: I wish to thank the discussants for their remarks. Several types of sedatives may be used but I believe that the bromides are especially contra-indicated because of their slow elimination in the aged. Any of the barbiturates may be utilized and there is usually some preparation of this group which each physician prefers. It is important to give sufficient quantities and to avoid small repeated doses which only confuse the patient without producing sleep.

In reviewing the literature on this subject I found reports from opthalmological surgeons who had performed hundreds of operations for cataract extraction in India, China and the Near East. These physicians had never seen a case of post-extraction delirium occurring in their native patients. For some unknown reason this complication appears to be restricted to our civilization.

USES OF PROGESTIN IN OBSTETRICS AND GYNECOLOGY

FRANK W. PEYTON, M.D.
LAFAYETTE

During the past few years progestin (corpus luteum hormone) has been added to our armamentarium in the management of certain obstetrical and gynecological conditions. Sixty-five such cases with the use of progestin (Lilly) are presented in this report. The cases are divided into groups according to the suggested usage of the drug as proposed by Bishop and his co-workers.[1] The groups are: habitual abortion, threatened abortion, functional menorrhagia, dysmenorrhea, and uterine hypoplasia. Conditions of premenstrual tension, hypermesis gravidarum, and sterility also are considered for usage.

Animal experimentation, along with clinical evidence, unquestionably proves progestin to be of specific value. From pregnandiol assay work, Browne et al[2] conclude that around 5-10 milligrams of progesterone (or 5-10 international units of progestin) are manufactured daily by the normal corpus luteum in the early months of pregnancy. Several authors feel that a dosage under four units a day in deficiency states is of no value. Other authors have given favorable reports with considerably smaller doses. The dosages set forth in this series are neither large nor small.

HABITUAL ABORTION

Kane,[3] et al.,[4, 5, 6] have reported cases of habitual aborters treated with corpus luteum hormone. Sixty to eighty per cent of these aborters were carried to viability.

In my series, there are seven habitual aborters, i.e., patients giving a history of having had two or more pregnancies ending in spontaneous abortion. These seven were treated with progestin. All seven pregnancies reached viability, five being full term, and two being premature births. The dosage varied from one to four units a week. Other measures, such as surveillance, correction of uterine malpositions, thyroid extract, and Vitamin E were employed.

REPORT OF CASES

Case 1. D.T., 32 years old, gravida iii, gave a history of miscarriage in 1935 and again in 1936. She was seen first during the eighth week of pregnancy and complained of nausea, backache, and uterine cramping. She was given two units of progestin each week for one month and then one unit a week for the following two months. The pregnancy proceeded uneventfully to full term. A normal male weighing six pounds and twelve ounces was delivered.

Case 2. C.S., 26 years old, gravida iv, gave a history of spontaneous abortions at three and a half months gestation in 1933, 1936, and 1937. With the present pregnancy she again started to have cramps and vaginal bleeding at the twelfth week. She was hospitalized and given two units of progestin a day for ten days. In six days the cramps and bleeding ceased. Four days later she was discharged from the hospital. Following dismissal from the hospital, the pregnancy progressed normally. She was given one unit of progestin weekly until the twenty-fourth week. She was delivered of a full-term, normal, male infant weighing seven pounds, two ounces.

Case 3. A.W., 31 years old, gravida iii, gave a history of spontaneous abortions in 1935 and 1936. A history of hypothyroidism and anemia also was obtained. She was seen when the pregnancy was of fourteen weeks duration and was passing a dark-stained, vaginal discharge. During the month prior to my care, she had received progestin. She was placed in bed and given one unit of progestin every other day for a week. Thyroid extract and iron were employed. The spotting ceased. Progestin was continued weekly in one unit doses until the pregnancy was of thirty-two weeks duration. At the thirty-sixth week she went into labor spontaneously. Considerable vaginal bleeding was encountered and checked by rupturing the membranes. She delivered spontaneously an apparently normal female weighing four pounds, twelve ounces. The infant succumbed five hours after birth. Autopsy of the infant revealed massive cerebral hemorrhage. It is interesting to report that the placenta had a velamentous insertion of the cord.

Case 4. H.K., 38 years old, gravida iv, gave a history of three spontaneous abortions, occurring within the past five years. The pregnancies had been from eight to sixteen weeks in duration. During the past two years she had been taking thyroid extract because the B.M.R. was minus 20. The pregnancy was of ten weeks duration on her first visit. Two units of progestin were given each week. Thyroid extract and Vitamin E also were employed. At the twentieth week the progestin was decreased to one unit a week, and one month later it was discontinued. The pregnancy progressed normally to term, with the exception of mild toxemia. She was delivered by laparotrachelotomy of

---

[1] Bishop, P. M. F., Cook, W. C., and Hampson, A. C.: *The Lancet*, **1**:139, January 19, 1935.

[2] Browne, J. S. L., Henry, J. S., and Venning, E. H.: *Am. J. Obst. & Gynec.*, **38**:927-953, Dec. 1939.

[3] Kane, H. F.: *Virginia M. Monthly*, **62**:334, September, 1935.

[4] Krohn, L., Falls, F. H., and Lachner, J. E.: *Am. J. Obst. & Gynec.*, **29**:198, February, 1935.

[5] Kane, H. F.: *Am. J. Obst. & Gynec.*, **32**:110, July, 1936.

[6] Elden, C. A.: *Am. J. Obst. & Gynec.*, **35**:648, April, 1938.

a normal, female infant weighing seven pounds, thirteen ounces.

Case 5. M.D., 24 years old, gravida v, gave a history of two spontaneous abortions and two premature births. The pregnancy was of twelve weeks duration on her first visit. Treatment was started two weeks later when she had a few cramps and started spotting blood. She was given one unit of progestin a week. Vitamin E was administered. Her hyperchromic microcytic anemia was corrected. She received a total of fourteen units of progestin, and was delivered of a full term, normal female infant weighing seven pounds, thirteen ounces.

Case 6. S.T., 28 years old, gravida vi, gave a history of three spontaneous abortions, one premature stillborn, and a full-term stillborn during the past eight years. At the time of her last delivery, diabetes mellitus was diagnosed, and she was standardized with insulin. She was ten weeks pregnant and was given one unit of progestin each week until the twenty-eighth week. The diabetes was controlled. The pregnancy was terminated at the thirty-sixth week by caesarean section. A normal, five-pound male was delivered.

Case 7. C.W., 21 years old, gravida iii, gave a history of two spontaneous fourteen week abortions three years ago. This pregnancy was seen at the sixth week and, following a positive Friedman test, was started on progestin. She was given four units a week for one month and has been followed by another physician with the recommendation that progestin be continued. This was carried out in smaller dosages and the pregnancy went to term.

THREATENED ABORTION

Any patient presenting herself with cramps or bleeding in the early months of pregnancy was considered threatening to abort. There were nineteen cases of threatened abortion. Four of the nineteen gave a previous history of one abortion but were not considered as habitual aborters. The patients were handled as follows:

Immediately they were given two units of progestin and ¼ grain of morphine. Rest, surveillance, and vitamins were employed. Most of the nineteen patients were admitted to the hospital two hours after the initial medication in order that progestin could be given (one unit every four hours). After twenty-four hours, the progestin was decreased to two units a day. After three days without spotting or cramps, they were allowed out of bed, and one unit was given once a week. Progestin was discontinued around the twentieth week in all patients. Thirteen of the pregnancies were maintained. Five patients aborted within twenty-four hours after treatment was started. One aborted on the fourth day. It is thought that if the aborting process has already developed to a moderate degree, then the effect of the progestin is negligible and of no value.

FUNCTIONAL MENORRHAGIA

According to Hamblen and Thomas,[7] Wilson and Elden,[8] et al.,[9, 10, 11] functional bleeding such as seen in endometrial hyperplasia is benefitted by use of progestin. These authors' dosages varied from 5 to 30 units for each case, and their results were considered satisfactory. There were seven cases of functional menorrhagia in this series. Two cases were at puberty, two in the menopause, and three were in the twenties. All seven ceased bleeding after two to four units of progestin were given daily for three days. Three of the patients had recurrence of menorrhagia and were given subsequent treatment.

DYSMENORRHEA AND PREMENSTRUAL TENSION

Elden and Wilson,[12] report the use of progestin for the relief of painful periods. Israel,[13] described a condition "premenstrual tension," which apparently is due to a deficient amount of corpus luteum hormone. Their suggested dosages varied from one-tenth of a unit to six units, one to six days before the expected flow. In this series, there were 20 patients treated with progestin. The patients were given one or two units on the third and fifth days preceding the expected menstrual flow. Where relief was obtained, the dosage was decreased to one or two units on the third day before the next flow. Seven of the fourteen dysmenorrhea patients obtained relief and considered its effect worthwhile. All six of the tension cases were helped by progestin.

STERILITY AND UTERINE HYPOPLASIA

Davidson[14] states that progestin is necessary during the last third of the menstrual cycle for the production of a normal endometrium capable of receiving and imbedding a fertilized ovum. There were ten patients in this series. Six of the cases were definitely hypoplastic with underdeveloped uteri and scanty menstrual flows. From two to four units were used during the last third of the menstrual cycle. The hypoplastic cases were given estrogenic therapy during the first two-thirds of the cycle. Two of the hypoplastic cases became pregnant and have gone to term.

VOMITING OF PREGNANCY

Finch[15] states that the nausea and vomiting of early pregnancy is an allergic reaction of the patient to her own secretion of corpus luteum.

---

[7] Hamblen, E. C., and Thomas, Jr., W. L.: *South. M. J.*, **29**:269, March, 1936.

[8] Wilson, K. M., and Elden, C. A.: *Am. J. Obst. & Gynec.*, **32**:194, Aug., 1936.

[9] Burch, J. C., et al: *J.A.M.A.*, **109**:1869, Dec. 4, 1937.

[10] Novak, Emil: *Texas State J. M.*, **34**:263, August, 1938.

[11] Macgregor, T. N.: *Brit. M. J.*, **2**:116, July 16, 1938.

[12] Elden, C. A., and Wilson, K. M.: *Am. J. Obst. & Gynec.*, **32**:91, July, 1936.

[13] Israel, S. L.: *J.A.M.A.*, **110**:1721, May 21, 1938.

[14] Davidson, S. M.: *Brit. M. J.*, **2**:1190, December 12, 1936.

[15] Finch, J. W.: *J.A.M.A.*, **111**:1368, October 8, 1938.

Desensitization with progestin is recommended. In my series, four patients were treated, and only one showed improvement.

SUMMARY

In comparison to other workers having employed progestin, it can be stated that progestin has added tremendously to the success of carrying many habitual aborters to viability. The dosage need only be of average size.

In threatened abortion, progestin has another definite use. The inhibition of uterine contractions is definitely shown. In the cases that did abort under treatment, marked placental separation had occurred early. The quieting of the uterus is worthless if it contains a dead fetus. It is important that threatening aborters be seen at once. Measures other than progestin should also be employed.

Progestin is not a specific for dysmenorrhea. Certain cases of uterine spasticity are not relieved by progestin. The dysmenorrhea dosage will always be difficult to ascertain because of the variation in individual need. Inconvenience of administration and expense will warrant its use only in a few select cases.

The cases of functional bleeding and sterility were difficult to evaluate because of their small number and the absence of endometrial studies to prove its value.

Progestin has a distinct use in several obstetrical and gynecological conditions. It has improved considerably the treatment of several heretofore unsatisfactorily treated complications. From animal and human assay, the therapeutic dosage would be large if one were dealing with a total absence of the hormone. Patients treated are considered as deficiencies rather than complete absence. Success is obtained by making up the deficiency.

CONCLUSIONS

1. Eighty-five per cent of the habitual aborters treated obtained living children by the use of progestin.
2. Sixty-eight per cent of the patients threatening to abort were carried on to term following the use of progestin.
3. Fifty per cent of the patients with painful periods were relieved.
4. Patients with functional menorrhagia ceased flowing.
5. Two sterility patients with uterine hypoplasia receiving estrogenic treatment prior to the progestin became pregnant.

OFFICE MANAGEMENT OF PELVIC DISEASES*

W. H. HOWARD, M.D.
HAMMOND

This paper will deal with many of the ordinary gynecological complaints common in an office where the physician sees many women patients. It is not my purpose to review a great mass of literature or to report any great research but rather to go over again the garden variety of conditions that are seen daily in the office.

The most common gynecological complaint is leukorrhea. By this we mean any discharge from the genital track with the exception of blood. This discharge is normally acid in reaction and contains very few organisms except the Doderlein Bacilli which is very similar to the lactic acid bacillus. The common use of the word, however, implies a pathological condition and at this time the discharge contains other organisms, the gonococcus which is not as common as formerly, anaerobic bacilli, staphylococcus and streptococcus, trichomonas vaginalis, fungus and yeast infections. In these conditions the normal acid reaction becomes weakly acid, neutral or alkaline.

The type and form of leukorrhea depends on where it is encountered—in a child, in the menstruating woman or in the woman in the menopause.

In the child, the discharge is due to a vaginitis rather than an infection of the cervix. The child's vagina is lined with a thin layer of cells, usually eight to twelve layers rather than the approximately forty-five layers found in the adult woman. It is this fact that gives us our best chance in treating the gonorrheal infections in children. The vaginal mucosa is stimulated to an adult-like structure which is very resistant to the gonococcus by the introduction of estrogenic vaginal suppositories. These are used in the form of Amniotin—1000 units to the suppository. It is necessary that this be continued nightly over several weeks to effect a cure. This same effect can be accomplished by giving the estrogen in oil by hypodermic and, in my hands, this seems to give much quicker results.

Other forms of leukorrhea in the child are set up by foreign bodies in the vagina. The child usually denies having introduced any foreign body and it is necessary to probe the vagina and then examine it with a direct light through a Kelly endoscope, the child being placed in a knee-chest position. Once the irritating object is removed,

* Presented before the Section on Surgery of the Indiana State Medical Association at the French Lick session, October 30, 1940.

the discharge rapidly recovers, particularly if the mother is instructed to instill one of the mild silver salts into the vagina with an eye-dropper twice a day.

In the adult woman the leukorrhea is usually found to be coming from the cervix, Bartholin glands only occasionally, from Skene's duct, and in the case of the trichomonas, from the vaginal mucosa.

In my own practice, the trichomonas vaginalis infection is much more common than is the gonorrheal infection. The trichomonas infections are characterized by a profuse, foul-smelling, thin watery discharge. The vagina is frequently so tender that the usual size speculum cannot be introduced and a small one frequently has to be used.

On examination, we find a strawberry-colored membrane with grayish spots upon it. The diagnosis is made by taking a small quantity of this discharge, placing it on a slide, diluting it with saline and using a cover glass, and then examining it under the microscope. It is not necessary to use a hollow glass slide to do this test. Under high power you see the moving, irregular shaped bodies, smaller than the epithelial cells but larger than a pus cell, which have a flagellum which moves rapidly. Some care must be taken that the patient has not taken a douche just before coming to the office or that the trichomonas is not killed by the lubricant used on your glove or speculum.

Treatment consists of using some form of chemotherapy locally. The results are usually very spectacular, but unfortunately all too often are only temporary. Whether this is due to reinfection or to the fact that the condition is not really cleaned up, I do not know. The vagina is dried and then, using a powder-blower, one of several powders is blown into the ballooned-out vagina. I have used quinine sulphate with very good results; also Wyeth's silver picrate and Searle's Floraquin. The patient is instructed to take a douche of lactic acid, one dram to one or two quarts of hot water the following morning. The patient should be treated three times a week and daily through the first menstrual period.

Acute gonorrheal infections are treated with sulfanilimide or one of the associated compounds, little local treatment being used. Fluids are pushed and the patient should get a great deal of rest. The chronic form does not respond as well to the sulfanilimide group; it is well established in the cervix, Skene's ducts and the Bartholin glands. We use local tampons with silver salts and potassium permanganate or tincture of iodine douches. When the condition is no longer progressing, some form of heat therapy is applied to the cervix, either cautery, conization or coagulation.

Skene's duct infections may have to be laid open to get rid of the secretion from them.

The non-specific infections seen in women who have borne children or who have had miscarriages or abortions present a form of leukorrhea in which the cervical glands are hypertrophied. It is in this form of leukorrhea that the electric coagulation is most efficient. Care must be taken that the disease is really chronic as active treatment to the cervix during an acute infection may send the infection up the lymph channels to infect the perimetrium or the tubes and cause a serious acute infection of these structures. The best time for the coagulation is midway between the periods and it is carried out in the office without any anesthetic. These cases must be followed over a long period to be certain that no stenosis of the cervix results. The good results of this treatment are due as much to the increased drainage as they are to the destruction of the infected cervical glands.

Senile vaginitis is due to the lack of estrogenic hormones and to a stricture of the cervical canal. It causes a leukorrhea which is scanty in character, and causes intense itching and often pain on intercourse. It is relieved by a dilation of the cervical canal and estrogenic substances given in the form of vaginal suppositories. These latter seem to work better than the hormone given hypodermically, because of the lubricating effect of the suppository.

Diabetic vulvovaginitis with its red swollen mucous membrane and thin discharge improves as the sugar is reduced, but this is due more to the general improvement of the patient than to the sugar irritation being removed. Smears should always be taken as many of these women harbor trichomonas in pathological quantities.

Dysmenorrhea is a very common complaint and, in fact, follows leukorrhea in its frequency. The causes fall in four large groups: neuralgic or ovarian; congestive; obstructive; membranous. The latter type is rather rare.

The vaginal examination will rule out any congestive type and if it is of an operative character it does not fall within the limits of this paper. Some of the mild congestive lesions are amenable, however, to local treatments with depleting vaginal tampons and hot douches.

The obstructive type frequently can be relieved by replacing the uterus, holding it in position with pessaries, or dilating the cervix with graduated sounds.

The ovarian type theoretically is due to an endocrine imbalance and as such should be relieved by progesterone, because it has the property of inhibiting uterine contractions. In practice, however, this does not work in a high percentage of cases. We have to fall back on the use of thyroid, codeine, coal tars, barbiturates and the old Viburnum compound. The nervous and psychic background plays an important part in this condition, and nutrition also is important. The anemias also must be corrected.

Sterility is another common complaint. Before going very far with the examination of the female, it is well to secure a warm specimen of the male semen and check for both the presence and activity of the male sperm; also check that the sperm reaches high in the cervical canal. The Rubin test will not only show whether or not the tubes are open but frequently it has been instrumental in opening up the partially closed tubes. Salpingography will show you if the tubes are open but I have seen it set up a low-grade inflammation and later find that the same set of tubes are closed. I, therefore, do not use this method any more.

Many of these women have low-grade endocervicitis with a mucous plug that does not allow the sperm to enter. If the cervix is cauterized and the leukorrhea cleaned up, they frequently become pregnant. Others have a stenosis; if gradually dilated and a stem pesery worn through the next period, it will be possible for the sperm to enter. Others have disturbed metabolisms that need to be corrected and frequently thyroid is of benefit. I have used artificial insemination with only fair results. Time and environment are also a factor as I have had patients become pregnant on a prolonged vacation after years of sterility.

Pruritus vulvae causes an intense itching about the genitalia. It usually involves the labia and clitoris but also frequently the adjoining structures. The itching is not usually continuous and is made worse by menses, alcohol, heat of the bed, and intercourse. The patient cannot refrain from scratching and the parts become inflamed, swollen and fissured. Treatment consists of removing any local discharge such as trichomonas, cleaning up any pelvic inflammation, diabetes, or any local skin disease and building up the general health, thus improving the patient's nervous system. Locally the mild silver salts and $AgNo_3$ help; they should be supplied once or twice a week with aluminum acetate douches daily. The more dry the parts are left, the better the patient feels. Antipruritics containing phenol help, they in turn being covered with Anderson's dusting powder. If the condition is due to senile vaginitis, the estrogenic substances will give relief. Search must be made to be sure no pubic lice are present. If the itching persists in spite of all treatment, x-ray of the region sometimes is beneficial.

ABSTRACT: VENEREAL DISEASES

A cooperative attack on venereal disease by employers and employees is essential for the conservation of the national defense labor force, Doctor A. J. Aselmeyer, Assistant Chief of the Division of Venereal Diseases of the U. S. Public Health Service, told a joint meeting of health and civic groups in York, Pennsylvania, January 30, 1941.

"You can expect," the Federal venereal disease control officer said, "to find three or four workers with syphilis in every hundred in your factories." He summarized the industrial losses of venereal disease as:

1. Lowered efficiency of the infected worker who neglects treatment.
2. Damage to equipment by workers whose infection has affected vital organs.
3. Production interruptions through replacement of these workers.
4. Workmen's compensation for well employees who may be injured in accidents caused by the infected worker.
5. Growing taxes to pay for infected workers who become public charges.

"Defense against venereal disease begins on the home front," Doctor Aselmeyer said. He called for broad diagnostic treatment, contact-tracing, and educational activities. "The problem is for the community as a whole to be conducted under the leadership of the city health department, the local medical society and civic organizations with the cooperation of State and Federal public health authorities. Now with industrial democracy called upon to prove its national strength, the community faces a new challenge."

"A worker trained to perform a specific task in industry is an asset as long as he can produce," Doctor Aselmeyer pointed out. "Now that the conservation of labor, particularly skilled labor, is becoming more pressing, the employer has a greater economic interest in keeping the trained worker on the job. There should be no special concern for the working capacity of an employee with a venereal disease *as long as he is brought under regular treatment before he reaches the stages producing disability.* The danger of spreading his disease to other employees is small, since syphilis and gonorrhea are spread almost entirely by sexual contact. The danger is nil *as long as he sees his doctor faithfully until cured.* Proper treatment will enable him to do his work *competently and safely.*"

Discharge of the infected worker borrows trouble for the community and the industry. In the long run such cases are reflected in higher relief and tax loads.

The Federal health officer emphasized that "discrimination against the infected worker has constituted the largest obstacle in introducing effective control programs in industry. Both national and local leaders of the Congress of Industrial Organization and the American Federation of Labor have endorsed the venereal disease control program. They insist, and rightly so, on proper safeguards to prevent discrimination against infected workers. Cooperation will solve this problem. If the employers as civic leaders in their community, and their workers and families as the members of the community, will unite in an attack on venereal diseases for the good of both, there need be no fear of discrimination."

NEWER PROVEN THERAPEUTIC AGENTS*

MISCH CASPER, M.D.
GEORGE J. PETRO, M.D.
LOUISVILLE, KENTUCKY

General practitioners and surgeons meet on common ground in a discussion of the newer therapeutic agents. We do not pretend to know by personal experience all the newer agents, and we can discuss only those we have used in our own hospital service.

Many new agents are on the market and, with a little more time, these can be added to our list; a greater number will not stand up and will be forgotten or replaced by still newer ones in a few short years. Old proven therapeutic agents are constantly finding newer uses, though obviously for the sake of brevity we cannot discuss them here. Many therapeutic agents are not drugs; hence, our title may include the field of hormones, which, though not new, is broadening constantly. Vitamins belong to food elements, and doctors have lately been swamped with vitamin literature. Even the laity is well informed, perhaps too well informed, on vitamin therapy; we will not discuss vitamins in this paper.

Unfortunately, many therapeutic agents have multiple trade names which are confusing and a nuisance to the medical fraternity. This situation is partially our fault, as we have allowed pharmaceutical houses to name their own preparations; however, in the past few years the medical profession has taken the situation in hand, and is trying to make these companies have a standard name for each preparation; for instance, sulfanilamide is still sulfanilamide no matter which company makes it.

Acetocholine preparations, together with allied and related members of the choline group of drugs, especially some of the newer compounds, have lately proven to be stimulating to the parasympathetic system. These agents are thus valuable in a large number of conditions, such as lead colic, retention of urine, and colonic stasis; also, they are vasodilators, and a newer chloride is staple for more practical use, and can be given orally, being especially valuable in Raynaud's and kindred arterial spastic diseases. Mecholyl and Doryl belong to the choline group, both being powerful. In the main, all of the choline group and their esters are physiologically antagonistic to atropin. The different forms vary somewhat in therapeutic indications.

In the treatment of hyperacidity of the stomach, in cases of ulcer and ordinary functional hyperacidity, our ideas have been reversed in the past few years. We used to try to neutralize the free acid content of the gastric secretions, but it has been proven lately that we have a secondary rise of acidity that is sometimes equal to or greater than the original acid content. We have used one of the newer preparations, Amphojel, which is the trade name for aluminum hydroxide, a preparation that acts in reducing the hyperacidity by adsorption. In other words, it does not neutralize the acid but adsorbs and renders it inactive; hence, we do not have the secondary rise following this medication that we have with the alkalizing agents.

Antipneumococcic rabbit serum, a new form of an old agent, has been taken off the shelf and is now an extremely useful agent, especially valuable since typing pneumonia has become practicable. This, with sulfapyridine, is the best treatment of pneumonia developed in the history of medicine.

The most valuable contribution to therapy in a generation has been the sulfam group. We visited Dr. Long's patients in Johns Hopkins when he was working on these agents, their value having previously been published first in Germany and then in England. We saw Dr. Long's cases of osteo of the pelvic bones, which had existed for years, melt away under the charm of the wonderful drug, and any one who has wrestled with this stubborn piece of pathology naturally would be profoundly and immediately impressed. The sulfam group was first given in streptococcic infections in the form of Prontosil and Neoprontosil; however, as it was soon learned that these were converted into sulfanilamide, we began using the purer drug itself because it was much cheaper than, and equally as effective as, the Protonsil and Neoprontosil. It was soon learned that other organisms were discouraged in their rapid reproduction, probably through its bacteriostatic action. Later, we had sulfapyridine, which showed a specificity for the pneumococcic group of bacteria. Then came sulfathiazole, which has a greater action on the staphylococcic group. This last agent has proved to be less harmful to the patient than most of the others, and is also useful in infections other than the staphylococcic. At present we give these agents interchangeably, but we check the exact kind of infection we are dealing with by culturing the organisms. We still do daily blood tests routinely when giving large doses, but when smaller doses are given, this is not necessary if the physician sees the patient daily and if the patient stays out of the sun. For most infections of the urinary tract, the members of the sulfam group are superior to any of the urinary antiseptics. A great advantage is the fact that the sulfams act equally as well whether the urine is acid, alkaline,

* Presented before the Dubois County Medical Society, at Jasper, Indiana, November 20, 1940.

or neutral in reaction. The full field of usefulness of the sulfam agents is probably barely touched. We have found them useful for topical applications, such as packing a compound fracture wound with crystals after proper debridement, and also have found these agents useful in saline solution to irrigate abscess cavities.

Avertin has been used for a long time in Germany as a rectal anesthetic, and we have used it quite some time as a preoperative analgesic. Now it is valuable as an anticonvulsant (in eclampsia) and as a relaxant in renal colic.

Concentrated liver extract U.S.P. is almost a specific in pernicious anemia. It is also valuable in other anemias, and has been especially improved lately by adding extract of gastric mucosa. It is uncertain whether these agents act as hormones or not, but they are certain and powerful hematopoietics.

Cortate, or cortine, is the specific hormone for Addison's disease. This hormone is sure to branch out and prove useful in other disease conditions of a borderline kind, as it represents the powerful cortex of the adrenal gland. Much work is now being done in the use of adrenal cortex in the preparation of surgical patients for operation, and good results have been reported. Patients do not suffer the usual amount of shock, there is a decrease in nausea, and, on the whole, patients seem to stand surgery much better.

Dilantin is a great improvement in our armamentarium in the treatment of epilepsy. True, it controls grand mal the best, and is not useful in petit mal. It is anticonvulsant without producing the accompanying drowsiness or sedative action of the barbital group and the bromides; also, it is not habit-forming. It may be given in conjunction with other hypnotics.

Insulin is not new any more, I know, as I visited Banting and Best in Canada in 1925 just after it was announced to the world; however, it is a boon to humanity, whether for the medical man's treatment of diabetes, or for the surgeon's use of insulin preliminary to surgery on diabetic subjects who often have other pathology in addition to that induced by their diabetic condition. Insulin lately has come into another therapeutic use, quite as sensational as it was for diabetic control. Insulin therapy causes a recession of the psychic state in dementia praecox and other mental pathology. It acts by producing insulin shock and, though spectacular, it is probably a control rather than a cure. Metrazol, another new agent in the treatment of disordered mental states, is even more powerful than insulin, and acts by throwing the patient into a convulsive state. Similarly, malarial treatment for paresis is now on a sound basis. Naturally, violent treatments such as these should be given only in an institution.

One of the newer products, which you have been reading about and using the past year, is Vitamin K. This preparation has been used in cases of prolonged clotting time, as in the hemorrhagic diseases of the new-born and in obstructive jaundice. Many obstetricians are now using it prophylactically in their prenatal patients to lessen the probability of severe postpartum hemorrhage in the mother and also hemorrhagic disease of the newly born infant. The preparation is given by mouth or in the form of liquid or gelatinous perles. Bile salts must also be given with this preparation in order to activate it.

Floraquin and other similar acid compounds are death to trichomonas vaginalis, a condition that is fairly common and certainly very distressing to the victim. Of course, it must be sought for, as otherwise it will often be overlooked. The trichomonas is found by examining a fresh specimen under a low-powered microscope.

Then we come to urinary antiseptics. Urotropin was our sheet anchor as a urinary antiseptic, since it was promulgated by Professor Casper of Germany in the 1890's. It has been valuable over the years, especially in an acid urine. It does not compare, however, to the mandelic acid group which also must be given with an acid urine. Most of the mandelates tend to render the urine somewhat acid, and may be supplemented with other acid-producing drugs. The mandelates are invaluable in streptococcus faecalis, proteus vulgaris, bacilli coli, and so on, being effective in about 80% of the cases (according to Cook et al. in 1937).

Oestrus hormone, progesterone, and pituitary-like hormones of a synthetic nature, made from pregnant mare's urine or serum, have revolutionized gynecology in recent years, and have done much to improve the lot of womankind. The indications of these hormones are now fairly well standardized and their uses well established, so that their use is not a guess in the dark. The oestrus hormone is useful in many female disorders, but finds its established and constant value in the menopausal syndrome, both natural and artificial. I would call attention to the excessive or irregular bleeding around the menopause, to the danger of overlooking a beginning cancer, and emphasize the importance of biopsy before any medication is given. This procedure of biopsy is valuable also to determine the need of oestrus hormone medication. Microscopic examination of the shedding epithelium of the vaginal mucosa is being done lately in lieu of biopsy to determine which hormone is indicated. Also, I would call attention, in menopausal flooding due to hyperplastic endometritis, to the proven value of radium used in conjunction with hormone therapy.

Progesterone, the other ovarian hormone, finds its most certain use in the vomiting of pregnancy and in the prevention of threatened abortion, and is about the only agent that works in habitual abortion.

A knowledge of the action of oestrin and progestin aids us in determining which hormones may

be indicated and when. Indeed, both ovarian hormones may be indicated in the same patient, and then we give oestrin in the first of the cycle, before ovulation, and progestin after ovulation, or premenstrually. Here also the gonad-stimulating hormones, acting through the pituitary, may be used to supplant the ovarian hormones. Gonadogen, and like substances, have a more permanent effect because they aid the patient to manufacture her own hormones and in long continued cases are eventually the logical agents, though the ovarian hormones will give quicker action, and should be used first in severe cases. Too, they can be used jointly or alternately. If we remember that removal of the anterior lobe of the pituitary causes cessation of all genital functions including production of ovarian hormones and menstruation, and brings about atrophy and sterility, we shall have a better insight into the working of gonadal therapy. (Zondek)

Let us not forget our old reliable thyroid extracts and their effects in conjunction with gynecological, functional conditions. They are used conjointly with the other hormones. Thyroid has a most powerful gonad-stimulating action. Many are now of the opinion that the pituitary acts through its stimulation of the thyroid. There most certainly is a close, interlocking relationship between these endocrines.

Testosterone, the male hormone, which has come in lately for some well established therapeutic indications, is certainly valuable in all hypogonadal conditions. The male surely goes through a climacteric period with a train of neurological, psychic, and other symptoms quite similar to the female, and testosterone has been used with great success in such cases. We are convinced also that it causes some reduction in size in enlarged prostates, which constitute one of the banes of the aging man. Some of these cases come to the surgeon late, and are so large that a resectoscope cannot be introduced to do a transurethral resection. Drainage through the indwelling catheter, with the administration of the testosterone, will cause sufficient shrinkage that the operation can be readily performed. Testosterone is also of value in gynecological cases.

Every day new and improved therapeutic agents are being brought out, and we physicians welcome them as important aids to our profession; but we owe it to our patients to be ever guided by caution, and to refrain from placing our seal of approval on any agents except those that have been adequately proven to be safe and effective. Thus, by keeping well informed of the constantly enlarging field of therapy, and at the same time exercising care and discernment in our use of the new products, we can work hand in hand with the pharmaceutical companies and also serve our patients with the best that our profession has to offer.

ANESTHESIA FOR ORAL SURGERY DURING INFANCY

J. D. SPAID, M.D.
DAYTON, OHIO

The dearth of articles upon the subject of anesthesia for oral surgery in infancy has prompted the writing of this paper. During the past five years we have had the opportunity of handling the anesthesia for some three hundred cases of hare-lip and cleft palate repair. The great majority of these cases were infants under eighteen months of age, and many of the lip cases were newborn. The safe management of anesthesia for this group of small patients presents certain considerations which will be discussed in this article. One should have a knowledge of the anatomy and function of both the respiratory and circulatory systems of the infant. The preliminary study, preparation, selection of anesthetic agent and method of administration demand careful attention if the best results are to be obtained.

Oral surgeons generally prefer to correct hare-lip deformities at the earliest age possible and, therefore, this group of patients are usually infants, many of which are newborn. Several of our cases were babies less than a week old. The repair of cleft palate usually is done at about the eighteenth month of age in the selected case.

As already mentioned, the consideration of the anatomy and function of the respiratory and circulatory systems of very young children is important. The nasal passages of the infant are very narrow, and space between the vocal cords is extremely narrow.[1] The calibre of the trachea is between 3 to 4 mm. The lungs, naturally, are very small, with a limited vital capacity. As a rule, vital capacity is greater in boys than in girls. Respiration in the infant is usually described as abdominal in type.[2] During infancy, and especially with the newborn, respiration is very irregular and the rate is influenced by the slightest causes. At times quite a long pause may occur. The average rate of respiration in very early life can only be determined approximately and the estimates of various investigators differ widely. The following table represents average figures only:

Age	*Rate*
Newborn	30 to 50
Balance of first year	25 to 35
1 to 2 years	28 to 30
3 to 6 years	22 to 26

[1] Griffith & Mitchell: "Diseases of Infants & Children," Saunders, Vol. I, 47-50.

[2] Henderson, Y.: "Adventures in Respiration." Williams & Wilkins, 1938.

As to circulation, the activity is greater in children than adults. In the newborn, the time required for the blood to leave the heart and return is about 12.1 seconds. At three years of age, the time is about 15 seconds. Even in health the pulse rate tends to be somewhat irregular in force and frequency. During the first month of life the pulse rate is about 130 to 150 per minute; from the first to the sixth months it is about 120 to 140. From one to two years it runs 110 to 120, and from two to six years the rate is about 90 to 110. Blood pressure is very low in young children and reliable readings are impossible in infants younger than three years. Figures from the best investigators indicate a mean systolic pressure at birth of 55 mm. of mercury and a mean diastolic pressure of 40 mm.

PREPARATION

It has been our practice with babies who are to receive anesthesia to have first an x-ray study of the thymus gland, and in those showing hypertrophy we postpone operative procedures until the child has had adequate x-ray therapy. While all anesthetists do not agree with this measure and some even go so far as to deride the lymphatic hazard we feel that this step should be taken, if for no other reason than to forestall adverse criticism in event of an accident.

As a mild preoperative sedative, paregoric is given orally in doses from one to three minims one-half hour before operation. Atropine is also given hypodermically in doses from 1/500 to 1/300 grain, depending upon the age and weight of the infant. As ether is our choice of anesthetic agent, we find that atropine is very useful for its drying effect.

In a few instances we have used a very small dose of barbiturate rectally with excellent results. However, this procedure is not to be recommended for the large percentage of cases because of the great possibility of respiratory depression.

CHOICE OF ANESTHETIC AGENT

What is the preferable anesthetic for children during the first few years of life? There have been lengthy discussions in favor of one or another of the agents. Gas anesthesia[3] has been advocated by some clinics and a few pediatricians have recommended the rectal administration of Avertin. However, ether still serves a very popular demand and undoubtedly it is the safest of all the agents at our disposal.

Regardless of the form of anesthesia to be employed in very young patients, it is imperative to use small doses and administer them slowly, since babies are very sensitive to rapid induction.[4]

Our chief objection to gas anesthesia during infancy is that a certain amount of resistance is necessarily placed upon respiration. It requires definite exertion to work even the most delicate of valves and breathing bags of the gas machines, and even with the simple to and fro absorption technique, the required breathing through a canister of soda lime places a burden upon the tiny thorax. To use gas anesthesia successfully, it is essential that some form of endotracheal technique be used. As previously mentioned, the calibre of the infant trachea is very small, and to further decrease the size of the lumen by the introduction of a catheter is objectionable. Also, unless intubation is performed with extreme care, the likelihood of trauma is very great and post-anesthetic complications may result. Advocates of the endotracheal technique claim the advantage of keeping blood from being aspirated. We find that with the patients in moderate Trendelenburg position, with the head extended and adequate suction available at all times, this danger is extremely remote.

In palate surgery, it is the practice of many oral surgeons to infiltrate the operative field with novocain solution, to which adrenalin has been added for its hemostatic effect. Use of the novocain lowers the sensory threshold appreciably and thus reduces the amount of inhalation agent necessary. There is no doubt that the use of adrenalin does greatly decrease bleeding, but its use is not entirely without danger. Following the use of adrenalin the heart rate is greatly accelerated and the force of the beat is extremely strong. If by accident a small amount of the adrenalin solution should enter the blood stream a terrific rise in blood pressure would follow, with possible fatal results. The likelihood of acute cardiac dilatation or rupture of a blood vessel are accidents which may occur.[5]

In our hands ether has proved to be the agent of choice because of its high factor of safety and its anesthetic potency. When given with plenty of oxygen, as will be described under administration, ether has no peer.

ADMINISTRATION

The old method of partial suffocation in the initial stages by the administration of massive doses, with the idea of rapidly overcoming the instinctive resistance of the baby, is to be condemned. It is preferable with infants to supply large amounts of oxygen along with the anesthetic agent. Babies feel the lack of sufficient oxygen much more than do adults, and for this reason the slightest degree of cyanosis should never be tolerated.

Since respiratory activity in children is very marked, it is not necessary to stimulate respiration by the use of carbon dioxide, except in the presence of some complication.

For induction we use the open drop method,

[3] Ayre, Philip: "Endotracheal Anaesthesia for Babies With Special Reference to Harelip and Cleft Palate Operations." *Current Researches in Anaesth. & Analg.* 16: 330-332. Nov.-Dec., 1937.

[4] Dogliotti, A. M.: "Anaesthesia," Debour, 1939, 627-30.

[5] Guedel, A. E.: "Inhalation Anaesthesia," McMillen, 1937, pp. 77-78.

given slowly and with plenty of air. When the baby is in first plane anesthesia, the mask is removed and a small mouth hook is used, supplying a mixture of warm ether vapor and oxygen. Any good anesthetic-suction apparatus, such as is used for tonsillectomies, may be used. These machines have electric heaters to keep the water jacket about the ether jar continually warm, and the flow of ether may be controlled by a valve arrangement. The supply tubing to the ether hook is divided into two equal parts of about two and one-half feet and a glass T tube is placed in the middle with the oxygen supply coming in at this point. The oxygen supply is regulated by a standard liter flowmeter attached to a large oxygen cylinder. We prefer the type which is supplied with a water bottle through which the oxygen bubbles and thus supplies adequate humidity to the anesthetic mixture. The oxygen flow is usually maintained at about four to five liters per minute.

The use of oxygen along with the anesthetic agent is very important.[6] The color of the infant remains excellent and respiration is more quiet. The excess oxygen supplied to the tissues is of great value in tiding the baby over those periods where the airway becomes temporarily obstructed by the tongue depressor when deep sutures are being placed in palate repair.

Anesthesia is maintained at the highest level possible to accomplish the necessary surgery, which is usually in the upper first plane. Deep anesthesia is neither necessary nor desirable. Careful watch for sudden deep anesthesia must be maintained at all times. Pallor, shallow respiration, and dilating pupils are danger signs. The chief care is to keep the small patient quiet with as little anesthetic as possible.

Since between one and two hours are required for many palate and lip repairs, the danger of prolonged anesthesia must be kept in mind. Many authorities mention a post-operative hyperpyrexia and pallor. In such cases a few hours after operation there is marked elevation of temperature, pallor and profuse perspiration. The pallor persists, the pulse becomes small and frequent, and death may result. The cause of this post-operative picture, which is generally attributed to the anesthesia, is not entirely clear. It is very likely related to a post-operative acidosis and the anesthetic may have an unfavorable influence in operations of long duration. Personally, we have not experienced this unfortunate complication. For the prevention of these sequelae we believe that the use of a high oxygen content of the anesthetic mixture is extremely important. Where we have followed this anesthetic technique, recovery has been almost immediate and no signs of shock have been present.[7] The convalescence in all our cases has been uneventful.

SUMMARY

Since articles dealing with anesthesia for oral surgery during infancy are relatively scarce, this technique is offered. Adequate study and preparation of the infant is advised. Selection of the best anesthetic agent for babies, in our opinion, is ether administered with an abundance of oxygen. In all cases where this technique has been used by us, recovery has been prompt and the convalescence uneventful.

[6] Beecher, H. K.: "The Psysiology of Anaesthesia," Oxford Med. Publications, 1938.

[7] Spaid, J. D.: Unpublished Case Reports, 1934-40.

ABSTRACT

PUBLIC NOT PARTICULARLY ENTHUSIASTIC ABOUT PREPAYMENT MEDICAL SERVICE

Discussing programs for providing medical care which are being tried out by various state medical societies, *The Journal of the American Medical Association* for February 1 says that: "One difficulty seems to be common to all these plans. The public is not particularly enthusiastic about prepayment for medical service. There is no evidence that the citizens of this country are yearning for any universal compulsory system.

"Physicians were cognizant of the problem of providing good medical service to the indigent and low income classes long before social reformers began to take the problem into politics. And the medical profession did something about it! Fred DeArmond, 'Cutting the Doctor's Bill to Fit,' in *Nation's Business* for November, is impressed by two different types of approach:

" 'Doctors try a new procedure on a guinea pig first. If it works, they use it on a patient.

" '. . . Social reformers . . . experiment on the whole nation and, if there isn't too much revolt, they then test the procedure on a guinea pig.'

"Between 1932 and 1938 more than 200 county medical societies entered into agreements with relief authorities to provide medical care for the indigent. In twenty-six states, county medical societies cooperated with the Farm Security Administration in trying out plans to provide medical service to the low income classes. Not all of these plans were a success and physicians did not expect them to be. They were frankly experiments. Organized medicine also experimented with medical service bureaus through which the indigent were 'filtered' to the proper source of medical service and which made arrangements for convenient postpayment plans. Some of these experiments failed, but something was learned from each of them. And the whole nation was not used as a guinea pig. In a number of states, prepayment plans are now being introduced on a statewide basis. Sometimes an enabling act of the state legislature has been required. The state plans are not all alike. Michigan, California and New York, where the plans have actually gone into operation, differ in a number of minor details. In Wisconsin several plans were tested. The state medical society in every case is watching not only its own plan but those of all other states engaged in such an experiment. Unlike many social reformers and critics, the medical profession will abandon any of the features of a plan that prove unsatisfactory or may adopt any more successful features from other states."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Mrs. J. S. Skobba, 1021 Hume-Mansur Building, Indianapolis

Editorial Board. Term Expires
Edgar F. Kiser, M.D., Indianapolis.....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne.....Dec. 31, 1941
James F. Balch, M.D., Indianapolis.....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette.....Dec. 31, 1942
Herman M. Baker, M.D., Evansville.....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie.....Dec. 31, 1943

MARCH, 1941

Editorials

CEREBRAL HEMORRHAGE

In an earlier time, John Bunyan referred to tuberculosis as "Captain of the Men of Death." Osler then borrowed the phrase to emphasize the pre-eminent role of pneumonia in human mortality. Now, the title unmistakably belongs to heart disease.

But if heart disease, in modern times, ranks as "captain" with respect to frequency in mortality statistics, cerebral hemorrhage merits the title "Field Marshal of the Battalions of Death" with respect to devastation of personality and crippling of human effectiveness, shortly leading to extinction of life itself.

Cerebral hemorrhage and related disorders take precedence over all others in the dramatic swiftness and destructiveness of their action. Their ravages spread even beyond the organic havoc they produce because mankind has never become accustomed to these most startling of all clinical events. On those standing by, the emotional effect of a "stroke" is always shocking and often seriously traumatic.

The layman's name, "stroke," is a good one, and "stroke" it is to the physician until he has taken the time and done the work necessary to differentiate among subarachnoid hemorrhage, embolism of a cerebral artery, thrombosis of a cerebral artery, and cerebral hemorrhage proper. Additional diagnostic difficulties can easily be conjured up if one recalls that a "stroke" may be only an event in the course of an unrecognized brain tumor, or that it may be an unusually rapidly developing encephalitis, or that it may be an immediate or delayed effect of trauma to the head.

Those cases in which head trauma can possibly be brought into question are especially deserving of detailed study, for two important reasons. In the first place, from the treatment angle, disability may be curtailed and life may be saved if subdural hematoma is present and is surgically treated in time. In considering the possibility of this lesion, one should not leave out of account an easily forgotten fact: the cerebro-spinal fluid is not rendered bloody by subdural hematoma, although the fluid may be xanthochromic in chronic cases.

The other reason for careful consideration of possible head trauma in every case of apparent "stroke" is that medico-legal questions of great importance may hinge upon the diagnosis.

If subdural hematoma seems to be brought here into relation with a group of disorders with which it does not properly belong, the reason is that case histories so often leave the possibility of head trauma so much in doubt.

Leaving out of account subdural hematoma and those cases of intra-cerebral hemorrhage which are induced by trauma to the head, the group of disorders to which this issue of THE JOURNAL is dedicated impress us as *spontaneous*. May not this point of view be largely due to the fact that the precipitating factors are often elusive in the case histories? Yet consideration of these factors may be the best means at our command to bring the cerebral accidents under some measure of control. People in whom the predisposing conditions can be diagnosed with some certainty are surely entitled to advice as to how they may best hold off the day of vascular reckoning.

Only a short while ago it seemed that there was not much to add to our knowledge of the pathology of the apoplectic disorders. Small aneurysms in the Circle of Willis were believed to be congenital and to provide a satisfactory explanation of subarachnoid hemorrhage. Atheroma of cerebral arteries combined with vascular hypertension fully accounted for cerebral hemorrhage, as from the lenticulo-striate artery in classical cases of hemiplegia. The same arterial lesion combined with hypotension led to the slower developing thrombosis. The role of syphilis in the "stroke" of young adults was emphasized.

Modern demands for a more detailed understanding have led to information which disturbs these simple pathological concepts. For instance, with respect to hemorrhage, it is now debated whether weakness in the arterial wall is primarily as important as deterioration of the brain tissue around the artery. This "softening" is traced by some pathologists to antecedent minute changes in those capillaries which have their origin directly from arterial lumens and are, therefore, subjected to a higher pressure than the capillaries which spring from the twigs of the arterial tree.

With respect to treatment, there has also been recent active debate. Perhaps the profuse literature on management of cases of acute brain injury has contributed some principles which are challenging to older ideas of treatment of the spontaneous lesions. For instance, if edema or secondary hemorrhage in the brain, which has been traumatized accidentally, can be guarded against by placing the patient in a semi-sitting posture, why shouldn't that plan be followed in cerebral hemorrhage?

Borrowing again from the experience of the brain surgeons, as well as from animal experimentation, if the steadily rising arterial tension in patients with increasing intracranial pressure is known to be compensatory to medullary embarrassment, why should venesection be employed in cases of cerebral hemorrhage which manifest the same mechanism?

If ever there should be final agreement upon the details of treatment which are best under given circumstances, it would appear likely that faithful attention to these mechanical and physiological considerations which have made brain surgery possible will lead to the best results that are humanly obtainable. Even actual operative treatment, which has already been used beneficially in a most limited number of cases of cerebral hemorrhage, may find wider application, although the indications will likely remain very strict.

The most careful consideration of the dynamic effects of increased intracranial pressure and the most technical attention to the welfare of the brain are not enough. In all cases of "vascular accident," the physician must be prepared to assume complete responsibility for the maintenance of optimum conditions with respect to all of the bodily functions. No other therapeutic responsibility is as great as the care of a patient in coma. Is it true that our doubt of achieving a worthwhile success too often inclines us to make short shrift of the opportunities for treatment which lie open to us?

PHYSICAL THERAPY

In spite of the tremendous advances that have been made in physical therapy during the past two decades, it remains a fact that many physicians have never been converted to this method of treatment. When one considers that it is perhaps the oldest form of therapy, it seems peculiar that, for so long a time, it was neglected by the medical profession. Physical therapy was inaugurated some time prior to the Paleolithic age, probably before the year 4,000 B. C., when pre-historic man utilized sunlight, bathing and rubbing for the relief of his suffering. On the island of Cos in 400 B. C., massage, exercises, water and sun were used to restore the sick to health. However, throughout the ages scientific physical therapy has not kept pace with other branches of medicine.

Perhaps the dawn of physical therapy, as we know it, may be said to date from the last World War. During this period it was necessary to rehabilitate disabled soldiers as quickly as possible, and consequently all available physical therapy modalities were employed to accomplish this. The medical profession was introduced to this form of treatment with little basic knowledge and in an indiscriminate, matter-of-fact manner. With the end of the war a comparable problem was presented by modern industry in stepped-up production, and in the increased accident rate of modern transportation. Physical therapy became widely used by institutions and private practitioners. Manufacturers flooded the market with all kinds of appliances and employed high pressure salesmen and methods to place their equipment in every physician's office. When apparent saturation was reached, the larger markets in beauty culture salons, massage parlors, clubs, gymnasiums and innumerable, unqualified practitioners of various healing cults were sought. To a great extent this latter abuse exists today but, so far as the medical profession is concerned, it may now be said that physical therapy has found its proper sphere in relationship to other branches of medicine, and today is so much improved and so firmly established that its recognition as a very valuable aid in treatment is a matter of fact. This status has resulted from the establishment by the American Medical Association of the Council on Physical Therapy in 1927, and its work of standardization in this field, together with the splendid work which has been accomplished by the American Congress of Physical Therapy.

Physical Therapy is the term used to define the treatment of disease by various physical means. It comprises the use of heat and cold, massage, exercise, light, water, electricity, and mechanical and other physical agents. It encompasses the use of actinic rays, heliotherapy, fever therapy, diathermy, short wave radiation, electro-diagnosis, ionization, x-ray and radium therapy, mechanical measures of pressure and suction and occupational therapy. Thus it includes a wide variety of physical measures which, for their proper application, require a basic fundamental knowledge of their physical make up, as well as a thorough appreciation of their therapeutic and physiologic effects. For this reason it is encouraging to witness the steady, substantial progress being made by the men interested in this field in placing the use of their modalities on a truly scientific basis. It is to be hoped that some means will soon be found to restrict its use to the members of the medical profession qualified to recognize its value and its limitations. Like many another therapeutic measure it has grown up as a sort of step-child of medicine, and is now employed by innumerable unqualified persons whose essential knowledge is

limited to their ability to apply a pad or turn on a switch. This form of therapy is a method for treating diseased conditions and as such belongs within the realm of those qualified to practice medicine. Its employment by those not licensed to practice medicine therefore must be considered as a violation of the intent of medical practice acts.

It has been estimated that 65% of all industrial cases need physical therapy, and beyond this field there is a wide variety of conditions amenable to its influences. It is encouraging therefore to find the establishment, throughout the country, of departments of physical therapy in our hospitals, and of the formation of recognized courses in our medical schools for the training of physicians and technicians in this important branch of medicine. No longer can physical therapy be condemned, rather should we recognize its value as an adjunct in medicine and surgery and encourage its employment where indicated and beneficial. It will be through an appreciation of this fact and the cooperation of physicians, investigators and those trained in physical therapy that this branch of medicine will be placed on a more scientific basis and receive the recognition it deserves.

WILLIAM NILES WISHARD

"The Grand Old Man of Indiana Medicine" is gone and in his passing the profession loses one of its stanchest supporters. For more than sixty-five years this man was a powerful influence in medicine, not only in Indiana but throughout the entire nation; his fame as a surgeon extended throughout the civilized world. Notwithstanding all this, it is of his utter devotion to Indiana Medicine that we would write at this time.

His interest in "doing things" was evinced early in his medical career; at the time he took charge of the Indianapolis City Hospital it became apparent that he was an organizer, a man of vision, one who planned and builded not only for the present but for the future. And this trait was apparent later on when he assumed various health department activities.

Dr. Wishard not only wanted to know "why," he wanted to know what to do about it. The incident of the passing of a patient at the City Hospital, long years ago, due to a prostatic obstruction, might be cited as an instance of this trait in the man. He wanted to know why the man had died, and when the post mortem examination revealed the cause of death, Dr. Wishard set about planning corrective measures to the end that other men might not die from the same cause. The results of his long-continued investigations in this field revolutionized the management of prostatic obstruction and in later years Dr. Wishard was the recognized authority in such matters throughout the world.

For forty-nine years he held the position of Professor of Genito-Urinary diseases in the Indiana University medical school, having organized the department, the first of its kind west of the Alleghanies.

Early identifying himself with his local and state medical organizations, he soon was officially active, serving in various capacities for some sixty years. In turn he was president of the State Association, chairman of its Council, head of its legislative committee and, later on, he organized and headed the Bureau of Publicity until his demise. During this period he wrote the Basic Medical Law of 1897, which stands as one of his many monuments.

If Dr. Wishard took more interest in one of his many Association activities than another, it was in the Bureau of Publicity. On several occasions he remarked to the writer that this was his pet project—"It is my baby, you know." And as we look back over the work done by this committee, by Dr. Wishard if you please, we do not wonder why he loved this work so much; it stands as his greatest accomplishment for his State Association. Few states had conceived such a plan prior to this time and later on many states sent representatives to Indianapolis to make a first-hand study of the plan, that they might essay something along the same lines.

Through the years Dr. Wishard acquired a group of "his boys," as he termed them; not only those who from time to time served as his personal assistants, not only some of those who came from other states—and from abroad—to study with him for varying periods, but "his boys," chaps to whom he had been attracted in the class room and whom in later years, as he expressed it, he "adopted." On many occasions we have heard the man tell of these boys, "my boys," thoroughly pleased with the things they were doing in the medical world. For example, when Terry Townsend became president of the New York State Medical Association, Dr. Wishard wrote a letter in which he expressed pleasure equal to that which would have been his if his own son had acquired such an honor. "Terry is one of my boys," he wrote, and it goes without saying that "his boys" were inordinately proud to be thus honored.

It long has been a question in our mind as to whether the Church or the medical society stood highest with Dr. Wishard; in our many chats with him we never asked the question, but he was devoted to his Church and his God. An old-school Presbyterian was he, and though we never have heard him comment on it, we would state that he was a Fundamentalist. It was characteristic of the man that once he believed a thing, that was his creed, whether it be matters of Church, profession or politics.

A kindly, lovable man, the type of man that instantly attracted one, Dr. Wishard was universally loved. His smile, his little chuckle when something pleased him, are to be long remembered by his friends and acquaintances. His passing

leaves a vacancy in our official family that will not be filled for a long time to come, yet he leaves us a priceless heritage—a memory of a truly good man.

The Journal for June will be a Wishard Memorial number, in which we hope to portray many of the phases of the busy life of this unusual man. Plans are in the making for a most comprehensive review of one of the most outstanding characters in American Medicine.

NATIONAL DEFENSE PROGRAM

It is impossible for one man to conceive of all the ramifications of our national defense program; it is at once the most intricate, most attention-compelling and the most elaborate program ever undertaken by any nation. Few indeed are those of our citizenry who are not immediately concerned in this vast undertaking, either from an active participation now in the making or in active operation. It also is true that we all are concerned with the costs of these projects, since by way of an elaborate tax set-up these costs will be collected in the years to come.

The mechanization of war calls for the expenditure of billions; it calls for a defensive army of millions of men, including the Army, Navy, Marine and Air Corps, to say nothing of the Home Guard Defense. The training of millions of our young men is in itself a huge undertaking when we consider that one phase of this big program means that in the short period of twelve months young men from every part of the country, from every walk of life, and from every trade, business and profession, will have become "fit," to the extent that they can and will march thirty miles in one day, carrying full equipment.

Industry is being revolutionized; mills and shops that a few months ago were producing equipment and supplies for the usual marts of trade have been transformed overnight into "war foundries"; they now are producing guns, shells, explosives—all the materials that seem so necessary in the world-wide campaign of "kill."

When the National Defense Program was first organized, primary consideration was given to health matters. It was patent that unless the health of the nation was kept to its highest peak there would be many a flaw in any such program. A year ago the medical profession was asked to enter upon this vast program, to take immediate steps toward a nation-wide health efficiency.

At the New York convention, last June, the House of Delegates of the American Medical Association announced to the nation and to the world that American Medicine was *ready* to do its part. Every state and county medical organization is now enlisted in the Defense Program.

We have manned the local, the advisory and the state and national Boards; we daily are seeing to it that only the "fit" are sent to concentration camps. We will continue in these capacities so long as our services are needed and, in passing, it is only fair to comment on the fact that these professional services are gratuitous except in those cases in which physicians give full-time service.

But we have other responsibilities, equally important and equally heavy. No man can say what is before us in the near future; we may find it advisable to carry on this defense program for years to come. We may—God forbid—find it necessary to take full advantage of "being prepared" in actual warfare. In either event, the medical profession of America has enlisted in the health phases of whatever may betide.

In addition to the usual more or less routine health duties we are accustomed to meet in our daily work, we face the possible epidemics that commonly are met in times of war. Then, too, industrial health and hygiene, rather new topics of recent years, will occupy much of our attention. Further, and of very great importance, we have the old problem of venereal disease control. During the first World War a rather sporadic attempt was made to cope with the problem, but with a modicum of success. The United States Public Health Service now stands committed to a program, the aim of which is to exercise a high degree of control over these diseases. As recently has been pointed out, our means of travel have materially increased and "are such that prostitutes can now move about with great rapidity. And in spite of all control measures there is sure to be an increase in the number of dangerous contacts."

Reverting to the problem of industrial health and hygiene, it may be well to consider the present shortage of expert workers, particularly machinists and tool and die makers. In many shops it has been found necessary to call back some of the older men, many of whom had passed the retirement age. And we are advised that already has it been deemed necessary, in some shops, to increase the working hours of employes, some of whom even now are on a seven-day-per-week schedule, this in such plants as are devoting full time to war materials.

So it is that our health program takes on new responsibilities and nowhere are these of more importance than in those mills and shops which have become "war-minded." The Journal, fully sensing the grave importance of National Defense and the role which the profession of medicine is to play therein, has in preparation a special Industrial Health number, scheduled for April. We believe this will be a most comprehensive study of the big problems that have been presented to the medical profession in this connection. Practically every phase of what-to-do-about-it will be presented, not overlooking the subject from the standpoint of Labor.

American Medicine—Indiana Medicine has squarely met every call made upon it; we will not

fail to do our part in the National Defense Program.

AGAIN THE TRAFFIC PROBLEM

This is one of the most discussed problems throughout the nation; every newspaper, every magazine and every medical journal has from time to time commented upon it. Our city councils, our state legislatures and our national Congress all have tried their hand at enactment of laws to "regulate" automotive traffic, but with little effect. And it seems that here in the Hoosier State we again are facing the problem with renewed interest because of a marked increase in the death toll from these so-called instruments of death.

Marion county reports a list of some 177 automotive fatalities, while Lake county also shows a marked increase. Certain of our state and federal highways, long regarded as danger spots about the state, also have taken an increased toll, notwithstanding the intensive studies made by our highway engineers, seeking to eliminate dangerous crossings, curves and whatnot. And so it was, throughout most of the state, an increase rather than a decrease. In Indianapolis, in particular, much work has been done along the lines of accident prevention and even now her officials are in a deep study of traffic conditions, seeking the remedy.

In other parts of the country are outstanding examples of traffic regulation, communities in which a traffic death is somewhat of a rarity. For many years Evanston, Illinois, stood at the top for the entire country in this regard. In 1939 Kansas City made a strong bid for recognition along these lines, having reduced her traffic death rate to a very great degree. Cleveland also came in for deserved encomiums, as did Buffalo and a few other large cities.

In Kansas City, for 1940, the traffic deaths were reduced to the minimum, having been ten less than in 1939. For a period of eighty-five days there were no such deaths in that city and it is pointed out that this period is usually accompanied by the highest rate of traffic accidents throughout the country—April 13 to July 8.

Numerous bills will be introduced in the present legislature, many of them probably meritorious, but the big problem of traffic regulation, and by that we mean enforcement of existing laws, will remain as the solution of the problem.

There are plenty of laws now on our statute books to safeguard our people. It is our observation that cities having the lowest traffic casualty rate are those in which the traffic laws are intelligently written and most carefully enforced. Nor is it wholly a police problem; no matter how efficient the officer in charge of a downtown section may be, unless the judge of the court before whom the offender is brought is co-operative and sees to it that no guilty person escapes some sort of a fine, just so long will that community have unnecessary and avoidable traffic accidents.

The pedestrian problem continues to be an acute one. Just what to do with the walkers, no one seems to know. For a good many years folk have been walking along our highways and our streets, and they have been doing it for so many years that they have made a habit of it. It may well be said that these folk assume that they have the right to do this; even the Supreme Court of the United States has held that they do have a right to do this thing; in fact, they have the prior *right* to do so! But try to convince the average motorist that the lowly pedestrian has any sort of rights! For example, let's consider Washington and Illinois streets, in Indianapolis, complicated by the angling of Kentucky avenue into the corner. We often have occasion to walk east on Washington street at this corner, on the way from our hotel to the office of The Journal. We stop at the hotel corner, get the green light, and start across. Our first hazard is the traffic coming in from Kentucky avenue. Having successfully dodged that, we get almost across, only to find that the light has changed. Even though we have not completed the crossing (as the Supreme Court has said we have the right to do), and are but a few scant feet away from the curb and safety, we find a north-bound street car impatiently clanging at us and the north-bound motor traffic started on its way. Many times we are hard pressed to escape with a whole hide.

This is only an example of why there are such traffic accidents; we have been in many cities where such conditions do not exist and, therefore, in these cities the pedestrian still has some right to be about the streets.

This has come to be an age of haste; everyone is in a big hurry to get somewhere and this is especially true of the automobile driver. A few years ago he was content to walk a few blocks; now he hops into the car to run down to the corner to get his newspaper. We made an observation some time back that we believe still holds true; most of these hurry-up drivers in our communities are going no place and have nothing to do when they get there! They simply are in a hurry—without reason.

Something must be done to stop this wholesale slaughter on our highways and our streets; just *what* can be done about it is another question, but it is our belief that only by everlastingly hammering at it will we be able intelligently to solve the problem. We again repeat, the motorist *must* be made to realize that if he is to be permitted to drive a car he *must* drive with some degree of intelligence, he must respect the rights of others, and he must obey the law.

Editorial Notes

A year or so ago we mentioned that there were some four hundred deer ranging the state forests of southern Indiana. According to late reports, this herd has materially increased so that now it is said that the number approaches the thousand mark and that deer are occasionally noted in northern Indiana. Two friends of ours, returning from a trip in the southern part of the state, remarked that on several occasions they had seen the handsome animals along the roadside.

According to the *Quarterly Bulletin of the Indiana University Medical Center*, the problem of what to do about infantile paralysis remains a most acute one for Indiana Medicine. Some 200 cases of this disease were handled at the Riley Hospital last year. It is stated that it now is possible to make a diagnosis of this disease before the onset of paralysis, in many cases, and that the iron lung will save the lives of about one-half of those cases in which the respiratory muscles are involved.

Occasionally we note a *short* editorial, one that uses few words yet preaches a whole sermon. One such appeared in the Indianapolis *Times*, January eleventh, with the caption, "His Need Is Greater": "The 'Medical and Surgical Supply Committee of America' is shipping 225,000 aspirin tablets, among other things, to Greece. Couldn't they spare just a couple for a man with an awful headache—address, Palazzo Venezia, Rome, Italy?" We'll give you two guesses as to whom it is that the editor refers!

Press reports from down-state Indiana would seem to indicate that we may have a Juke family within our borders. Remember the Juke tribe? Interesting family that; most of the members thereof spent most of their time in jails, penitentiaries and various asylums, all at no small cost to the communities in which they happened to live. According to the present newspaper account, the mother of the family (she was the mother of eleven children), a son and a daughter, together with a prospective son-in-law, were sentenced to the various penal institutions of the state, having been convicted of several thefts. There are too many of the Juke tribe hereabouts and we daresay many of our sister states have the same feeling about it. And yet, the "sob sisters—and brethren" wail loud and long the moment we try to enact a bit of eugenics legislation!

The annual meeting of the American Medical Association will be held in Cleveland, June 2-6, 1941. Since this meeting is conveniently located to our membership it is likely that a large number of Indiana physicians will attend. We would again direct your attention to the provision that only *Fellows* of the American Medical Association are permitted to *register* at these meetings. A physician who is a member of his county and state medical societies is a *member* of the American Medical Association, *but not a Fellow*. Fellowship is obtained by the simple expedient of making application therefor, enclosing eight dollars for same, which includes an annual subscription to *The Journal of the American Medical Association*, the largest and best medical publication in the entire world. Better join up, right now; get your Fellowship card and take it over to Cleveland next June.

Now, after years of patient waiting, we have the low-down on that greatest of aids to advertisers, "B. O." Writing in January *Hygeia*, Haggard avers that these offensive odors arising from and about the human frame are not due to chemical changes deep in the flesh, but that they are directly attributable to the fact that the sweat and grease, as they come from the skin, "turn rancid and putrefy from bacterial action." He also declares that the breath, as it is exhaled from the lungs, is not offensive; but that it becomes so because of contamination from the mouth. It seems that he makes an exception of alcoholic breath, which he maintains does carry its odor directly from the lungs. Another interesting observation is that "man cannot smell the full aroma of his own breath, nor is he keenly conscious of the odor of his own feet!" He also denies that the stomach is a factor in the production of "bad breath."

The other day, in a down-state paper, there was some comment regarding the first railroad built in Indiana, the old "J. M. and I" (Jeffersonville, Madison and Indianapolis). This reference brought back many memories, for long have we had a bit of sentiment about that old line. More than forty years ago we traveled back and forth from Indianapolis to Madison, during our college days, never losing the thrill of the end of the trip, the ride down the "cut". This was one of the steepest grades in the country and was negotiated by the use of a special engine, a short, stubby affair, especially built for this service. Of recent years the line has been all but abandoned; there has been no passenger service for many years and but little freight service. Now we note that with the coming of a big Federal project to the community there is likelihood that the old railroad will again come into its own and be put to regular use, all of which is mighty good news.

"Old Doc" Brinkley, he of goat gland fame and the same chap that for some time past has broadcast his "marvelous powers" from a private, high powered radio station down in Mexico, is again in the newspapers, this time by way of a bankruptcy proceeding. According to press reports, he shows more than a million dollars in liabilities, with assets of a little more than three hundred thousand dollars. Brinkley has had a colorful career, twice being an unsuccessful candidate for Governor of the State of Kansas. Some years ago he brought suit against the American Medical Association, the entire testimony in the case being published in *The Journal* of that organization. It afforded interesting reading, to say the least; the court decided in favor of the A. M. A.

We would suggest that physicians have their office address printed on their stationery. Too often we receive papers and various communications with the address, "John Doe, M.D., Indianapolis"—or some other seaport. It is true that we have the latest copy of the American Medical Directory, but it does take time to locate addresses. In this connection we might say that the post office department does not like names of buildings as a city address; they much prefer the street number of that building. Long ago, when we were a local county medical society secretary and our town got its first "skyscraper," one of our younger men objected very strenuously to using the street address rather than the name of the somewhat imposing office structure; he said the latter was a more impressive address!

The *Monthly Bulletin* of the Jackson County Medical Society made its first appearance in January. It is a well-arranged, informative, one-page message, designed to let each member know the details of the coming meeting and to supply bits of information of interest to members of the Jackson County society, such as the fact that one member has been made an honorary member, a committee has been appointed to work with the trustees of the local hospital, and the society's annual financial report in summary. A column of volume 1, number 1, is devoted to a complete list of officers and committees of the society for the year. The page is the standard 8½x11 inches, with three holes punched to fit into a standard loose-leaf binder. Members of the Jackson County Medical Society will have no reason in the future to be uninformed or misinformed in regard to the activities of their society. THE JOURNAL congratulates Jackson County, and expects to find news notes in each *Monthly Bulletin* worthy of republication in our own pages.

Have you invested in your 1941 hunting and fishing license, the cost of which is one dollar and fifty cents—reduced rate for the Missus, you know? The February number of that delightful and informative magazine, *Outdoor Indiana*, is our authority for the statement that in 1940 about four and one-half millions of fish were released from the state hatcheries, some two million of these being that scrappy little blue gill, the favorite of the majority of Hoosier fisher folk, both in the water and in the frying pan. Something like a million bass, of all varieties, were included in this list. In addition to the activities of the state hatcheries, the various conservation clubs over the state, operating 530 ponds, raised over ten million fish during the past year. So it seems that Hoosier Waltons have a good season in store for them. Whether you are a fisherman or not, we would urge that you purchase one of these licenses, which are the principal source of funds for the Commission. Practically every dollar received goes "back into the water."

When, oh when, will the American people learn to "break down" the costs of so-called medical care? That phrase, "medical care," continues to arise and smite us on every occasion; unfortunate indeed was the choice of such a title for that well-known committee that made an extensive study of the matter several years ago. In Michigan last year the matter was made somewhat of a political issue, a certain group using the grossest sort of indigent sickness as a basis for the claim that medical men were getting rich from their services in such cases. However, it now develops that the actual financial return to the medical profession of that state amounted to 2.6 cents of each dollar expended in such services. The hospital took something over 75 per cent of the money and it is presumed that the remainder went for drugs and other supplies. Let's stop talking about the costs of "medical care"; let's make it clear that the cost of illness is not dependent upon the medical fees which usually are but a minor part of the costs of sickness.

The Indianapolis *News*, in editorially commenting on "Army Physical Tests," states that it is quite apparent that one of these days the country is going to awaken to the fact that "the economic and social drain caused by failure to correct physical defects is extremely costly. The army experience is that a large proportion of the men who are rejected could easily be made fit by medical attention and training." This of course is no news to members of the medical profession; during the first World War many of us had first hand information of this sort; we saw hundreds of our young men, physically unfit for army service, but who might easily have been restored to normal health had they but sought such advice. The *News* concludes its comment by stating, "An educational

program to encourage the individual to submit to a physical checkup and to adopt such corrective measures as he can would greatly reduce the army rejection rate." Sound advice, that; just the sort of thing we have been preaching for many, many years!

The Indianapolis *News* for February fourth editorially comments on a reported decision of the United States Supreme Court concerning a charge filed against the United Brotherhood of Carpenters and Joiners, under the Sherman anti-trust law. The Court is reported to have held that the Union is not subject to trial under this law. The *News* takes occasion to say, in this connection, "The overzealous New Dealers in the Justice department, plunged beyond all reason when they tried to show the American Medical Association is a trust. The carpenter prosecution was an attempt to reach for the labor unions by the same device. If the court had approved the practice, professional and labor organization would have been in jeopardy." The Muncie *Star*, January 16, and the Indianapolis *Star*, January 12, have editorials along somewhat the same lines, each article making it clear that it is very injudicious for the Congress and the Federal government to continue its attacks on the medical profession. We sometimes wonder if we of the medical profession fully appreciate the friends we have in the Indiana press.

In the Franklin *Democrat* for January sixteenth appears an editorial that can be read with much profit by every physician; it is but another way of putting what we have been trying to say for many years, that the medical profession is too modest about its accomplishments; too few of the American public are aware as to what we have done in years past:

WHAT DOCTORS COULD TELL

American medicine, as an authority recently observed has a weak spot. It is not a weakness affecting the patient—the sick man or woman anxiously seeking a return to health. The weakness lies in the fact that the medical profession has been so busy fighting disease in experimental laboratories as well as at the bedsides of the ill, that it has found little time to tell the public of its tremendous achievements. But an amazing story could be told.

The undeniable record is there for all who wish to read it. And it tells, through the figures, a dramatic and inspirational story of an endless battle against disease and suffering and death.

That battle has won victory after victory. In the period of a century and a half, in this country, the life expectancy of man has nearly doubled—from 35 to 62 years. During that time, typhus once one of the greatest killers, has all but disappeared. Smallpox and diphtheria, dreaded specters not so long ago, have been robbed of their terrors.

Other great scourges, typhoid, diabetes, tuberculosis, have been put under control, and their mortality rates steadily reduced.

That is what American medicine has done. And all over the land, and in countless laboratories and institutes for the most part privately financed and managed, the doctors and the scientists are fighting, day and night, the scourges which have not yet been conquered.

Medicine is not an industry. But like industry, it has rendered its greatest service to the people under a system which places no brakes upon the achievements of the individual, and which encourages any man, in any field, to develop his talents to the utmost.

The United States Public Health Service is presently concerned by the health problems presented by "transients," referring to those of nomadic tendencies who "are on the road." It is estimated that the total number of these folk ranges anywhere from 200,000 to an even million. One of these problems is due to the fact that local agencies usually discriminate against these travelers when they apply for medical assistance, because of local laws covering such cases. Practically two-thirds of all such relief agencies restrict their clientele to bona fide residents of the community, in either emergency or selected cases. Again it is found that many of these transients, both intra-state and extra-state, are prone to move from their homes to some other community in which the medical attention is of a higher degree in their opinions. (We know of such an instance in which a couple came to our county from one nearby giving us as the reason, "We heard you got more and better medical care here than at our former home.") It has been noted that these migrations often bring about a higher disability rate in various communities in which a considerable number of these transients gather. "As a result of poor living conditions, a high incidence of typhoid fever and particularly of dysentery occurs among transients." Among other illnesses that might thus be brought into a community may be mentioned smallpox, meningitis, malaria and trachoma. The recommendations of the Public Health Service are well worth repeating:

1. Migration and transciency must be recognized as permanent characteristics of American society.

2. An organization of Federal level should be created to direct and influence migration.

3. Through the planned cooperation of the Federal and State governments medical care should be provided for all needy persons, regardless of residence.

4. Particular concentration of transients in a State should be considered a special health problem in the allotment of Federal funds for the maintenance and improvement of local public health facilities.

5. The administration of any program of medical care for transients shrould be a function of the local agency responsible for the care of needy residents.

EVERYTHING COUNTS*

CREIGHTON BARKER, M.D., Executive Secretary
The Connecticut State Medical Society
NEW HAVEN, CONNECTICUT

In many quarters during the past few years we have heard it said that the present methods for the distribution of medical care are uncertain and cumbersome, unsound in principle, and however well they may have served in a simpler time, they are inadequate before the complex problems of today.

These criticisms have come from many sources; from the government, which in theory in a democracy is the people, from social planners and, stimulated by these, from the people themselves. Medicine has responded to these critics in many ways and in just the ways that can be anticipated by anyone who knows how the medical mind works. Doctors are highly trained technically, and when thinking on technical subjects they do a good job. There are variations, of course, due to differing degrees of native sense and education, but on the whole they are to be relied upon to have good technical judgment. Outside of medicine, however, it is a different story. Their horizons are likely to be close to them; they see their individual problems clearly but often exclude broader considerations and, frequently, their logic is a simple rearrangement of prejudices. Our commonest response has been a determined refutation of statements made by our critics. Perhaps we have been right in this, I do not know, for the results of the studies of the distribution of medical care, without respect to who made them, are not conclusive, but I do suggest that in our side of the debate most of us have shown more sentimental attachment for the past than instinct for the future.

For a time the sharp retorts in this socio-medical controversy have been blotted out by the crash of war. History is repeating itself to a degree, for the same thing happened to this argument in 1915, and I expect the same feeling of relief again falls on the defenders of both sides.

Every thoughtful one among us will realize that this respite can be but temporary. When the distractions presented by the defense effort are over, the probabilities of drastic changes in the pattern of civilization will stimulate the proponents of revision in medical care to new vigor. Indeed, it may not be a respite at all, for already there are signs that a public medical care program will be advocated as a necessary adjunct to national defense. Our profession may rightly urge that this proposal have realistic examination in the light of proved necessity. What the national defense really requires in the form of new or improved devices for medical care is a matter on which military authorities—not social reformers—should be consulted. This same principle of realistic examination should apply to every other proposal advanced in the name of defense, otherwise the preparedness program may sink to the level of a free-for-all battleground of self-interested pressure groups.

It is dangerous to make a forecast, but there is reason to think that the haste for social change by legislation may be slowed during the present national emergency. Two factors go to shape this opinion. First, in times of prosperity, whatever its provocation, when labor is in demand and wages high, there develops an unconcern for welfare enterprises because the need for them is not surely apparent; and second, the enormous cost of any national health program added to the already staggering defense burden, will hinder its adoption. I may be overly optimistic about the financial reasoning of our statesmen, but one begins to see a wavering of the opinion that there is at hand a great reservoir of tax revenue only waiting to be tapped. It is not a simple problem of merely diverting such and such a portion of national income into the public treasury. This has to be done by taxation. It is a job of taxation, not arithmetic, and many of our taxes have already moved into areas where they defeat themselves.

This interlude brought on by the national emergency, whether it be long or short, real or spurious, offers medicine a challenge and an opportunity. It is an interlude when everything counts. It is a challenge to do our part for our country, to do what we are asked to do in furnishing men and skill to aid in protecting our traditions and the freedom of our way of life. It is not enough to say, with high patriotism, that we will do it, there is importance attached to the way we do it. Fine statesmanship was exercised at the beginning of the preparedness program and American medicine was granted an important position in the national scheme. It is certain that we must maintain that position, keep the medical side of the program in our control and apply our influence to the development of policies. If we do not, and our efforts are apathetic or badly coordinated, it is inevitable that the agencies of government will manifest themselves and we will be thoroughly subject to their direction, instead of giving that direction ourselves. Realization of this circumstance is of two-fold importance. It would be presently unfortunate for American medicine to be discredited in its participation in the preparedness effort, and later when we will again face the proposals for the rearrangement of medical care, our lay critics,

* Presented before the Secretaries' Conference of the Indiana State Medical Association in Indianapolis, January 19, 1941.

who have before now expressed the opinion that we are not competent to deal with the problem, would point with glee to our failure to meet the medical problems of defense as an organized group.

An opportunity is offered during this time to perfect and consolidate our thinking on the subject of the distribution of medical care, so that when we again return to thoroughly peaceful pursuits we may take the leadership in suggesting wise and useful changes to make medical service more widely available. There is but one way that this objective may be accomplished, and that is through strong and well led organization. Medicine is organized in this country, and better organized than any other professional group. Indeed, it may be so well organized that it all becomes impersonal. We speak of "organized medicine" and the American Medical Association. These, of course, are not real things; we are organized medicine; and you and I, the secretaries and executives of units in the American Medical Association, twelve or fifteen hundred throughout the land, are the most important of all people in the organization. We hold the organization together and we further and extend its influence in our communities. A great part of the success or failure will belong to us.

Some of you are medical people, others laymen. Some of you are on full-time, some part-time, and some no-time. Among you are those who are interested in your job and alert to its requirements, others are indifferent and apathetic. Some of you have sought and retained it because of the medical-political influence that it gives you, and probably some of you are frankly bored. I would like to suggest that you assess yourselves and decide in which group you are included. If you are indifferent and do not care much, you owe it to your associates to resign. If you are not willing to do a little more than the job calls for, I would suggest that you hunt around for a successor. If you are bored, you owe it to yourself to ask relief. The importance of your part and mine in shaping the future of medicine cannot be too strongly emphasized. We should be moulders of public opinion and stimulators of professional thought in public affairs. Medical science progresses in such exciting fashion and professional interest is so keen that concern with clinical medicine on the part of the physicians in our societies requires only a minimum of development; but we are not just odd little men here and there in private enterprises of medical practice. That is the idea that many hold, but in fact it is not true. Doctors are units in one of the great essential industries of this nation, and it is proper that the people of the nation should be interested in that industry. Our part is to see that the industry is geared into its market. Our problems are no longer wholly within ourselves. Social realignments have brought American medicine to the point where it is playing a vital role in the nation's economy and the nation knows this. We have a public and social responsibility that must be met; not to see these responsibilities reflects upon our intelligence, and to shrink from them will surely bring us discredit. In the new scene will be things that are neither familiar nor sentimental objects, but I am confident that we are capable to shape the new order for mutual good and to meet the opportunity for service so that medicine may go on in the self-reliant pride that is our honest heritage.

I have come before you representatives of this great and progressive State with an humble spirit and The Connecticut State Medical Society is appreciative of the opportunity to have its representative here. Next year our Society will be 150 years old; it was one of the earliest in the country, and I am pleased to invite any of you to come and help us celebrate our sesquicentennial.

PARTICIPATION OF THE MEDICAL DEPARTMENT OF THE ARMY IN THE 1940-1941 MILITARY TRAINING PROGRAM*

LT. COL. WILLIAM C. MUNLY
MEDICAL CORPS, U. S. ARMY

Uppermost in the minds of many physicians undoubtedly is the matter of National Defense and, at the present time, the plan of the Medical Department of the Army to meet the demands placed on it by the present training program.

The immediate problem of our Department is twofold:

First, that of furnishing adequate medical service to the men of our greatly increased peacetime Army.

Second, that of training the large number of Medical Department enlisted men who, at the expiration of a twelve-month period of military service, will pass to the Enlisted Reserve Corps. They will comprise the trained personnel required for general mobiilzation in the event of a critical national emergency.

The following remarks pertain to the participation of the Medical Department of the Army in the 1940-1941 Military Training Program.

Strength of the Army. The total strength of the Army of the United States by June, 1941, will be approximately 1,400,000. It will comprise: (1) The Regular Army of 375,000 officers and men, (2) The National Guard of the United States of 225,000, (3) A citizen Army, selected under the Selective Service Act of 1940—of approximately 800,000 men. The latter will receive training in active units of the Regular Army and of the National Guard, in the Regular Army inactive units activated for training purposes, in numerous installations required for the overhead of these forces, and in Enlisted Replacement Centers throughout the nine corps areas of the country. Incidentally on January 1, 1941, the Army of the United States numbered 608,000, representing nearly a three-fold increase in strength within a year. One year ago, the Army numbered just 230,841, of whom 215,000 were enlisted men.

Duties of the Medical Department. Medical Care: The Medical Department is charged with providing adequate medical service for the Army at posts, camps, and stations within and beyond the continental limits of the United States. In each military station in the United States there will be *four hospital beds* for each *100* of the military population. The operating room, kitchen, messing facilities and clinics in each of these hospitals will be of sufficient size to provide service for an additional *one* patient per *100* men. Thus, in an emergency it will be necessary to construct only the additional ward buildings. Furthermore, there will be general hospitals suitably located throughout the United States to provide *an additional bed* per 100 of the military population. This provision of *5 per cent* of hospital beds which can be rapidly expanded to *6 per cent* may appear excessive when compared with hospitalization provided for the civilian population of this country. However, all of the military sick, including such cases as in civilian life are ordinarily cared for in their home, must be treated in hospital. This is necessary as they cannot receive satisfactory care in the barracks. Placed throughout the large camps or stations there will be dispensary buildings and dental clinics for the infirmary care and dental treatment of the men. In addition, in each large camp there will be a medical headquarters, with properly qualified scientists for the general supervision of the medical activities, including the protection of the health of the troops, the careful inspection of food products, and the general supervision of the nutrition of the men.

Training: The Medical Department is charged with the training of the Medical Detachments and the Medical Department units of the Regular Army and the National Guard, and with the instruction of the service personnel in hospitals and other installations. It is also responsible for the preparation of the trainees in Enlisted Replacement Centers, in hospitals and in service schools, who will receive there the individual Medical Department instruction which will permit their incorporation in organizations for further unit training.

Personnel: For these activities the Medical Department needs adequate personnel—medical—dental—veterinary—medical administrative and sanitary officers—nurses—and enlisted and civilian technicians.

Medical Department Requirements: What are the actual needs in these respects at the present time? What have we now and how much does the Medical Department need to expand?

Physicians: The initial requirement will be approximately *6.5 doctors* for each *1,000 men* in the military service. For an Army of 1,400,000 men, this means *9,100* medical officers. Additional ones may be required but the initial procurement will be limited to this number. There are now on active duty:

Medical Corps, Regular Army	1230 (Dec. 31, 1940)
Medical Corps, National Guard	1115
Medical Corps, Reserve	2478 (Jan. 3, 1941)
Total	4823

* Presented at the Sixteenth Annual Secretaries' Conference of the Indiana State Medical Association, January 19, 1941, in Indianapolis.

There is needed, therefore, 4,277 additional physicians by July, 1941.

There are at present in the Medical Reserve Corps 14,570 officers, of whom about 13,000 are in the junior grades. At first glance, the number appears sufficient for our present needs. It must be remembered, however, that approximately 9,100, of whom 6,655 will be of the reserve officers, will be needed *each* year during the *five*-year training program. Incidentally the peacetime procurement objective for Medical Reserve officers numbers 20,870. Under the joint resolution passed by the 76th Congress (Public Resolution No. 96, 76th Congress, approved 27 August, 1940), the President is authorized to order into the active military service of the United States for a period of 12 consecutive months each, any or all members of any Reserve component of the Army of the United States, with or without their consent. Thus, if a sufficient number of Reserve officers do not indicate their availability for service, they must necessarily be ordered to duty without their consent.

The authority for extended active duty for one year for Medical Reserve officers runs to June 30, 1942. Prior to the present training program we obtained yearly 1,200-1,500 Medical Reserve officers from medical schools, of which 400 were R. O. T. C. graduates. Additional appointments among physicians of draft age will increase the strength of the Medical Corps Reserve. However, it is apparent that a very large percentage of officers now in the Medical Reserve Corps must participate actively in the present program for National Defense.

In establishing rosters from which officers will be ordered to duty, Corps Area Commanders and Chiefs of Branches have been instructed to circularize all Reserve Officers under their assignment jurisdiction to permit them to state the amount of deferment desired and pertinent reasons for such deferment in the event they are not immediately available for military service.

For these medical reserve officers who are ordered to active duty, it is planned to assign them, in so far as possible, to duty with units and at hospitals according to their previous professional training and experience. Physicians within the draft age are not exempt from conscription for military training and service. Their deferment because of importance to civil communities or to complete their internship is a function of the local Selective Service Boards. Obviously, the training received by such selectees will be more appropriate and the services rendered the Army of greater value if the physicians who are eligible and qualified for appointment in the Medical Corps Reserve be commissioned in the Reserve Corps for duty as medical officers, rather than continue their training as enlisted men.

It can be appreciated that there is a real need for volunteers for active duty immediately by members of the Medical Reserve Corps. Furthermore, while volunteering for active service now only obligates them for one year's service, it is hoped many will apply for further extended duty at the completion of one year's duty. This number will obviously influence the number that will have to be called to duty next year. It is well again to emphasize the present need for Reserve Medical Officers for immediate active duty. We need well trained medical men for duty in our rapidly expanding hospitals. These must be drawn from our present reserve of medical officers. The present policy does not permit the commissioning of qualified physicians for original appointment above the age of 35, except in affiliated units.

Physically qualified graduates of approved schools of medicine who desire appointment in the Medical Corps Reserve for immediate active duty should make application to the Commanding General of the Corps Area in which they reside. Such applications may be submitted either before or after selection for military training and service, or after induction into the Army of the United States. No change in the classification will be made, however, by local boards until the actual letter of appointment has been received.

Appointments in the Medical Corps of the Regular Army will, in all probability, continue as at present through competitive examinations of Reserve Officers who have not passed the age of 32 years at the time of appointment.

Classification of Physicians: You are doubtless familiar with the work of the Committee on Medical Preparedness of the American Medical Association. The Surgeon General of the Army submitted to the House of Delegates of the American Medical Association at its meeting in New York in June, 1940, a request for its assistance in the classification and procurement of physicians for the Army. It was hoped in this way to obtain the physicians required without disturbing too seriously the civilian medical service and at the same time to place physicians enrolled and who desired duty, in positions for which their previous training qualified them. The House of Delegates approved the request of General Magee and appointed the Committee on Medical Preparedness. The U. S. Navy and the U. S. Public Health Service made similar requests.

The Preparedness Committee, the executive officers of the American Medical Association, the Chairman and members of the various State and local committees, have all given generously of their time and funds in this work.

I was informed last week that over 180,000 questionnaires have been mailed to American physicians. Approximately 145,000 answers have been received, 100,000 of which have already been coded and transferred to punch cards, and over 50,000 have been analyzed by state, and specialty. This Committee is now preparing rosters of medical men according to general and special qualifications, availability from the viewpoint of the

community and willingness to serve in the armed forces. The Surgeon General's Office has detailed a liaison officer for duty with the American Medical Association. Should the need arise, each Corps Area Surgeon could be furnished with a fairly complete list of physicians within the Corps Area.

In addition, each Corps Area Surgeon has sent questionnaires to the officers of the Medical Reserve Corps within his area and is obtaining information as to qualifications, specialized training, availability and willingness for service now or in the future.

Additional personnel information is also being obtained from the various National Specialty Boards, Colleges and Societies. In this work, Committees of the Division of Medical Sciences, National Research Council, and the Health and Medical Committee of the Federal Security Agency are lending their assistance.

Also, a joint Committee of the National Resources Planning Board and the Civil Service Commission is preparing a Roster of Scientific and Specialized Personnel, in cooperation with the American Council on Education, American Council of Learned Societies, National Research Council and Social Sciences Research Council. So much for information with respect to medical and scientific personnel. Let us now turn for a moment to the problem of Nursing care.

Army Nurse Corps: The Army Nurse Corps plans on four nurses per thousand—which allows one nurse to ten patients.

At present the Army Nurse Corps has on duty:

Nurses—Regular Army	1141
Nurses—Reserve	460
Under orders	330
Total	1931

There are needed yearly for the present training program 5,600 nurses, of which 4,465 will be Reserve Nurses on active duty for one year. By March 1, 1941, 3,713 nurses will be needed, and 5,600 by July 1, 1941. Reserve nurses are being procured by Corps Area Commanders from registers furnished by the American Red Cross and on hand in each Corps Area and from any other acceptable course. No nurse will be assigned to active duty except on a voluntary basis—with her written consent for a minimum period of one year, which, under suitable arrangements, may be extended for a longer period. No nurses over forty years of age will be accepted. Nurses who are engaged in essential Public Health activities, in teaching, and in administrative positions are not encouraged to volunteer. The present number of First Reserve Nurses enrolled in the American Red Cross is approximately 18,000 (unmarried—under 40 years of age). The number in the Second Reserve is about 42,000. These numbers seem adequate at first glance. However, recently in one of the corps areas, of 1,200 First Reserve Nurses questioned as to availability for active duty, only 105 accepted, and of the first 50 who accepted, 10 were found physically disqualified. A Red Cross program for additional enrollments is now in progress. Enrollments have increased as a result. Thus, in November, 1940, there were 117 enrolled, while in December there were 1,162 enrollments in the Red Cross.

About 22,000 nurses are graduated yearly in the United States. Personnel classification of nurses has been undertaken by the Nursing Council on National Defense, representing the American Nurses' Association, the National League of Nursing Education and the National Organization of Public Health Nursing and the National Association of Colored Graduate Nurses. Recently the Subcommittee on Nursing of the Health and Medical Committees has signified its desire to coordinate this work, which has been sponsored by the U. S. Public Health Service with the aid of the American Red Cross.

Dental Corps: The Army Dental Corps plans on 1.5 per 1,000. At present, the Dental Corps has on duty:

Dental Officers, Regular Army	267
Dental Reserve Officers and National Guard	650
Total	917

There are needed yearly for the present training program 2,200 dental officers, of which 1,993 will be Dental Reserve Officers on active duty for one year. There are at present 5,200 dentists in the Dental Reserve Corps. There are 1,800 graduates yearly from dental schools.

Veterinary Corps: The Army Veterinary Corps plans on 0.75 per 1,000. At present, the Veterinary Corps has on duty:

Veterinary Officers, Regular Army	125
Veterinary Reserve Officers	205
Total	320

There are needed yearly for the present training program 1,050 veterinary officers, of which 924 will be Veterinary Reserve Officers. There are at present 1,530 Veterinary Officers in the Reserve Corps.

Medical Administrative Corps: The Medical Administrative Corps plans on 0.5 per 1,000. At present there are on duty:

Medical Administrative Corps, Regular Army	61
Medical Administrative Corps, Reserve	100
Total	161

There are needed yearly for the present training program 700 Medical Administrative Corps Officers. At present there are 1,168 in the Reserve Corps.

Sanitary Corps Reserve: There are at present 35 on active duty, and 47 will be required for the present training program. There are now 473 in the Reserve Corps. It may be of interest here to describe the functions of the Sanitary Corps in more detail.

The activities of the Medical Department embrace many phases of non-medical work, the execution of which requires men of special training and experience. These men are provided by the Sanitary Corps, which, in a broad sense is our reservoir of such specialists as sanitary engineers, non-medical public health workers, food and nutrition experts, chemists, bacteriologists and men trained in medical supply and procurement.

The duties in which these men are utilized include such matters as the supervision of water purification and sewage treatment plants; the carrying out of special studies on water supplies and waste disposal; planning and supervising mosquito and malaria control campaigns; advising on, or assisting in the eradication or control of rodents, flies and other insects; advice on and supervision of waste disposal; the supervision of the Army diet as it may affect health and cooperating with the Quartermaster in this work; manning laboratories to release medical officers and to provide specialists for various phases of research; and assisting in the procurement of the tremendous quantities of materials required by the Medical Department to care for the expanding Army.

The services of these men are utilized throughout the entire organization of the Army. Various specialists are at work in the Office of the Surgeon General, at the Army Medical Center and in the various major supply depots. Chemists and bacteriologists are assigned to the various laboratories in corps areas and hospitals, and sanitary engineers are on duty in the offices of the corps area surgeons and in many of the camps. Some sanitary corps officers with special training have been utilized with troops on field water supply.

Medical Department Enlisted Personnel: There are authorized at present 24,418 enlisted men for the Medical Department. They are apportioned at the rate of 48.5 per thousand for hospitals and administrative overhead. For the present training program 59,200 will be required for hospitals and administrative overhead. Additional men are required for units according to Tables of Organization and authorization by the War Department. In all, the Medical Department of the Army has been allocated 76 enlisted men per thousand of the total force. Provisions have been made for their training at Enlisted Replacement Centers, Medical Department Units, and in special service schools and certain general hospitals. Medical Enlisted Replacement Centers will be established in February, 1941, at Camps Lee and Grant, for formal training of enlisted personnel. Prior to their establishment, training must, of necessity, be imparted by the informal method whereby selectees are distributed at once throughout various medical units and installations and by understudy absorb the necessary fundamentals working side by side with other trained men. Selectees entering the Medical Department must be used as fillers in units or installations now existing or to be activated.

Basic military and specialist training must be given before these individuals may assume their proper places in highly technical services, and it has been necessary to employ qualified civilian technicians and specialists to implement medical personnel in providing for the increased demands for hospitalization until an expanded training program may begin to bear fruit. It has been necessary to plan, construct and equip facilities in order to qualify by training within a year approximately 4,000 officers for field units, 4,000 officers for fixed professional installations, and at least 19,000 Medical Department enlisted specialists.

Enlisted Specialists: Enlisted specialists will be trained in special service schools such as the Army Medical School and the Medical Field Service School. In addition, schools for Medical Department Enlisted Specialists will be established at certain General Hospitals.

The following types of specialists will be trained: Laboratory, Dental, Medical, Pharmacy, Sanitary, Surgical, Veterinary and X-ray.

Medical Technologists and Civilian Employees, Medical Department: With the present expansion of the Army, not only will many additional enlisted technicians be needed, but also many civilian technologists, and civilian employees.

The Surgeon General's Office has authorized the corps area surgeons to hire a stipulated number of civilian employees (less those in General Hospitals). The figures authorized were based on the number of civilian employees, per month, per corps area, per number of patients expected. These figures are based on the functional figure of 529 civilians for a general hospital of 1,000 beds.

The total number and types authorized for the nine corps areas (less general hospitals) for the fiscal year 1941 is as follows:

Orthopedic Mechanics	20
Dental Hygienists	148
Dental Mechanics	103
Dietitians	337
General Laboratory Technicians	153
X-ray Technicians	188
Chemical Technicians	79
Pharmacists	186
Physical Therapy Aides	251
Occupational Therapy Aides	None
Meat and Livestock Inspectors	13
Total	1473

In addition to the regular procurement of enlisted technicians, the American Red Cross has undertaken the enrollment of various types of medical technologists who are willing to serve in the Medical Department of the Army and Navy if and when their services are required at the time of a national emergency. The enrollment now inaugurated is similar to that of the nurses' reserve which the Red Cross has maintained for the Army and Navy since 1911, and which is now being

expanded to include properly qualified male nurses and also the reserve of dietitians which has been maintained since 1917. The total enrollment on December 31, 1940, was as follows:

Chemical Laboratory Technicians (male)	137
Dental Hygienists (male and female)	146
Dental Mechanics (male)	175
Dieticians (male and female)	135
Laboratory Technicians (male and female)	251
Meat Dairy Hygienists (Inspectors) (male)	15
Occupational Therapy Aides (male and female)	13
Orthopedic Mechanics (male)	4
Pharmacy Technicians (male and female)	745
Physical Therapy Aides (male and female)	68
Statistical Clerks (Hospital Service) (male and female)	97
X-ray Technicians (male and female)	144
Total	1930

Most of the different groups of technologists have national associations or agencies which have established standards for membership and they are cooperating fully with the Red Cross in this work.

Female technologists and men who do not qualify physically for enlistment in the Army may be employed as civilians.

The Director of War Service, American Red Cross, coordinates this service with the Medical Departments of the Army and Navy.

Hospital Facilities: I have already indicated, in part, the need for expansion of our present hospital facilities. For purposes of planning, it was indicated that hospital facilities will be provided for 6 per cent of the total military forces. It is estimated that approximately 82,000 beds will be necessary for the training Army by June, 1941. There are now approximately 23,000 beds available in the United States, of which for the week ending November 29, 1940, 7,981 were vacant. The station hospitals now being constructed will provide for 4% of the military population, with service facilities such as operating room, clinical facilities, kitchens and messing facilities for an additional 1%. To provide beds for this additional 1%, it is then only necessary to build additional hospital wards. Thus, Station Hospitals will provide for 5% of the command, a 4% capacity on a 5% chassis. This is estimated at 68,000 beds. In addition, General Hospitals will provide for an additional 1%, or 14,000 beds, a total of 82,000 beds for the hospital care of the training Army. To meet these needs, a vast building program is now well under way.

Available hospital beds at the beginning of the emergency totalled 11,280; this included the five general hospitals in the United States. There are now under construction (January 1, 1941), station hospitals for 46,796 beds on a chassis for 64,700 beds, and 10,000 beds in general hospitals; new construction in station hospitals has made 9,785 beds available as of January 1, 1941.

General Hospitals now under construction and locations are as follows:

Atlanta General Hospital	2000 Beds
Charleston General Hospital	1000 Beds
New Orleans General Hospital	1000 Beds
Fort Benjamin Harrison General Hospital	1000 Beds
Santa Barbara General Hospital	750 Beds
Vancouver General Hospital	750 Beds

Other new general hospitals to be erected include:

Fort Dix General Hospital	1000 Beds
Fort Devens General Hospital	1000 Beds
Jefferson Barracks (site deferred)	500 Beds
One other deferred site not yet selected	1000 Beds

In addition to hospitals many large dental clinics have been recommended. These clinics are of two types, one a 25-chair clinic and the other a 15-chair clinic. These clinics will operate under the hospital commander, but will actually be located in the troop areas in order to be readily available to the troops for necessary dental work. Actually every troop concentration of 10,000 and above will have separate dental clinics situated in the troop area.

Affiliated Units: Many of you here assembled will remember the 50 Base Hospitals organized for the last war through the agency of the American Red Cross, at large hospitals and teaching institutions. No doubt some of you were associated with such units. As a support to the Medical Department, they cannot be praised too highly, for they arrived at their stations fully organized and in readiness to take over the entire operation of their hospitals.

Recently the War Department has authorized the organization, under its jurisdiction of similar hospitals or affiliated units in a number of the larger hospitals and teaching institutions in the United States. These units comprise 68 General Hospitals, 30 Evacuation Hospitals, and 23 Surgical Hospitals. Selection of officer personnel is made by the administrative directors of the institution concerned and all persons so selected will be members of the staff of the fostering institution. By this means we feel assured that units will be formed in which the most important requirements in reference to hospital operation will be attained. The members of the staff will all be men routinely engaged in the duties to which they will be assigned on mobilization. In pursuit of this measure, care is being taken that no hospital or medical school be called on for personnel in such numbers as will endanger the essential operations of the sponsoring units. These sponsored or affiliated units form no part of the present training program. Their services will be used only in the event of a general mobilization.

To date 47 General Hospitals, 18 Evacuation Hospitals, and 7 Surgical Hospitals, of the total authorized have been organized.

Medical Supply: The Medical Department is charged with the procurement and distribution of all medical supplies for the Army. These supplies may be placed in two broad classes: First, those items which are used in the routine care of the sick; and second, those items known as field equipment. Materials in the first category are largely the same items as those utilized in civilian medical and hospital practice; they are commercial in

nature, and their rate of consumption varies quite directly with the size of the Army. Field equipment, on the other hand, consists largely of items and assemblies adapted primarily for emergency treatment and evacuation of battle casualties. Such items are largely non-commercial in nature and their rate of consumption varies from a negligible quantity in peace time to astronomical proportions during actual combat conditions.

The types of medical supplies required have been determined and specifications covering them have been prepared. Further, estimates have been made as to amounts required for a major mobilization, and studies have been made as to the capability of manufacturers to furnish these supplies. Initiated in the early 1920's, this has been a continuing work, with constant revisions due to changes in type of equipment, changes in War Department mobilization plans, and changes in the productive capacity of the various manufacturers. This work, that is the computation of mobilization requirements and the study of manufacturing capacity, is called procurement planning and has been of inestimable benefit in providing a basis for the procurement of supplies in the present expansion program.

The work of procurement and distribution of supplies, while controlled by the Office of the Surgeon General, is decentralized to medical depots, where actual purchases are made and where supplies are stored and issued to the using agencies. At the present time, the Medical Department has four active depots in the United States, at New York, St. Louis, San Antonio, and San Francisco, plus three reserve depots. Within a very short time, two new active depots will be established at Chicago and at Toledo to care for the increased work of assembly, storage and issue.

For many years the Medical Department has had basic equipment lists covering supplies to be packed for field assemblies such as Battalion Detachments and Medical Regiments. During the last few months there have also been developed basic equipment lists for station hospitals of various sizes, from 25 to 2,000 bed capacity. This has greatly simplified not only the paper work involved in getting supplies to a new station, but also the actual work of assembly and issue of this equipment.

A year ago the Army had approximately 20,000 hospitals beds in 110 stations and general hospitals. By July, 1941, there will be approximately 82,000 hospital beds in 180 hospitals; and these hospitals will be fully equipped from mess hall to operating room, an expansion in 18 months of some 350 per cent.

In order that medical supplies for an Army of 1,400,000 men may be properly assembled and distributed, it has been necessary to obtain more than two million square feet of storage space. Space has already been leased in Brooklyn, New York, Chicago, Illinois, and St. Louis, Missouri. Negotiations for lease of warehouses in Toledo, Ohio, San Francisco, California, and Atlanta, Georgia, are being made at the present time.

Organization on the Civilian Health and Medical Front: So far, this discussion has been limited to the part being played by the Medical Department of the Army in the present military training program. Much would be lacking without indicating the present organization of civilian National Health, Medical and Research activities in Medical Preparedness.

Council of National Defense: The Council of National Defense, as you know, consists of six Cabinet members: War, Navy, Interior, Agriculture, Commerce and Labor. The three chief agencies directly under this Council were until recently: The National Defense Research Committee, the National Defense Advisory Commission, and the Health and Medical Committee.

The Health and Medical Committee: The work of this Committee has now been placed under the Federal Security Agency as a coordinating agency of all health, medical, welfare, nutrition, recreation and other related fields of activity affecting the national defense.

The Health and Medical Committee consists of five members: The Surgeons General of the Army, Navy and Public Health Service; the Chairman of the Division of Medical Sciences, National Research Council, and as Chairman, Dr. Irvin Abell.

Already there have been formed six main Subcommittees to the Health and Medical Committee, namely:

(1) Committee on Medical Education.
(2) Committee on Industrial Health and Medicine.
(3) Committee on Hospitals.
(4) Committee on Dentistry.
(5) Committee on Nursing.
(6) Committee on Negro Health.

Each of these Committees has appointed certain Subcommittees for the study of their particular interests.

The Federal Security Agency, now the coordinating head of the National Youth Administration, the Public Health Service, the Civilian Conservation Corps and the Office of Education, is now also responsible for all health and medical problems affecting the national defense.

So much for the organization and scope of this Committee as it pertains to health and medicine from the national viewpoint.

In reference to medical problems as they pertain particularly to the armed forces, the facilities of the Division of Medical Sciences of the National Defense Council are at our disposal.

The National Research Council: The National Research Council with its Division of Medical Sciences is actively functioning in medical preparedness. In these undertakings the Council and its parent body, the National Academy of Sciences, are fulfilling one of their primary functions.

President Lincoln in 1863 established the National Academy of Sciences, with provisions that

the Academy should give advice to the Government on any subject of science. The origin of the National Research Council lies in an offer which the National Academy of Sciences made of its services for national defense to President Wilson in 1916. It rendered valuable services in the last war. The National Research Council itself is composed of nine major divisions, of which the Division of Medical Sciences is one.

The problems of medicine are dealt with largely by this Division, with close cooperation with the other branches of science. Many of the National Societies are members of the division. Thus, the National Research Council acts for a great body of scientific men of the United States.[1]

Contribution in Present Training Program: In the early part of this year the Surgeons General of the Army and Navy requested the Division of Medical Sciences of the National Research Council to establish Committees which would act in an advisory capacity to the two Medical Corps. Shortly there were formed Committees covering practically the whole field of medicine. The membership of the Committees and Subcommittees represents the various groups and particularly the special societies devoted to these fields. Representatives of the Surgeons General of the Army, Navy, and Public Health Service attend the meetings of the Committees in order to present problems and to give technical advice. In addition to the appointed members and the service representatives, special consultants are called when problems in their field are presented.

Almost all of these Committees have met a number of times and a variety of problems have been discussed; many recommendations have been adopted.

The general function of these advisory Committees is to give professional advice when requested, to the services and to plan and administer research projects essential to the national defense.

Committees: There are seven main committees, namely:

(1) Committee on Chemotherapeutic and Other Agents.
(2) Committee on Transfusions.
(3) Committee on Medicine.
(4) Committee on Surgery.
(5) Committee on Aviation Medicine.
(6) Committee on Neuropsychiatry, and
(7) Committee on Information.

1. *Committee on Chemotherapeutic and Other Agents.* This Committee has divided its tasks under four Subcommittees:

(1) Infectious Diseases.
(2) Venereal Diseases.
(3) Tropical Diseases, and
(4) Surgical Infections and Burns.

2. *Committee on Transfusions.* This Committee has organized two Subcommittees:

(1) Blood Substitutes.
(2) Shock.

[1] The National Research Council and Medical Preparedness. *J.A.M.A.:* 115; 1640-1643 (Nov. 9) 1940.

The Subcommittee on Blood Substitutes is primarily concerned with the study of the relative merits of whole blood, serum, and of dry and wet plasma in transfusion, while the Subcommittee on Shock is undertaking fundamental research in this subject.

2. *Committee on Medicine.* This Committee has the following Subcommittees:

(1) Cardiovascular Diseases.
(2) Tuberculosis.
(3) Metabolism.
(4) Medical Nutrition.
(5) Clinical Investigation.
(6) Therapeutics.

4. *Committee on Surgery.* This Committee has as Subcommittees:

(1) Anesthesia.
(2) Radiology.
(3) Wound Healing.
(4) Surgical Specialties.

The Subcommittee on Surgical Specialties includes Committees on:

(a) Neurosurgery.
(b) Faciomaxillary and Plastic Surgery.
(c) Otolaryngology.
(d) Ophthalmology.
(e) Vascular Injuries.
(f) Thoracic Surgery.
(g) Orthopedic Surgery.
(h) Physical Therapy.
(i) Urology.

5. *Committee on Aviation Medicine.* This important Committee is conducting many studies on medical problems peculiar to aviation.

6. *Committee on Neuropsychiatry.* This Committee has two main Subcommittees, namely:

(1) Psychiatry.
(2) Clinical Neurology.

7. *Committee on Information.* To this Committee is delegated the assembling and dissemination of information concerning war medicine and the work of the Committees and of other organizations. It has three Subcommittees:

(a) Publicity.
(b) Historical Records.
(c) Correlation of Information.

These various Committees are actively engaged in their particular fields and are contributing their services to Medical Preparedness as it affects National Defense.

CONCLUSION

The present expansion of the military forces has been designed as a training program, a preparation which the Nation hopes will insure our peace but which will also insure our being ready should the grave responsibilities of war come.

Except for battle casualties, the health and medical problems of the Medical Department will reach the same magnitude. The medical task is a challenge to the medical profession of this country.

I have tried to indicate to you some of the problems of the Medical Department of the Army and the progress being made in solving them. We need, and we know we have, the whole-hearted support of American medicine.

TWENTY-FIVE YEARS AGO
March, 1916

The Journal of that period carried front page advertising, a practice discontinued several years ago.

* * *

Charles R. Bird, then of Greensburg, discussed "Diagnostic Routine in General Practice"; G. W. McCaskey, Fort Wayne, talked about "The Treatment of Cerebro-Spinal Syphilis by Intra-Spinous Injections," while C. P. Emerson, Indianapolis, had somewhat to say about "The Modern Conception of One Form of Nephritis." Seems that the Bird paper brought on a rather hectic discussion, W. R. Davidson, Evansville, in particular being quite vehement in his analysis of why so many diagnoses are incorrectly made.

* * *

Editor Bulson talked about various subjects, chief of which was a tirade against patent medicines. The new compensation law and the new regulations concerning the purchase and use of narcotics also came in for some of Bulson's characteristic comment. It appears that the comment regarding narcotics was prompted by the overt attempt of a few Indiana pharmacists to embarrass the medical profession by attempting to secure legislation that would prohibit any dispensing by physicians. Nothing came of it, however, except a lot of talk for several months.

* * *

Announcement was made of the decease of the last yellow fever-carrying mosquito, in Havana. It had been carefully nurtured in a local laboratory, the attendants of which gave it every attention, but it finally passed out, thus ending the final chapter in an American medical epic.

* * *

Six Bedford pharmacists had had their licenses revoked because of alleged "improper handling and sale of liquor."

* * *

Seven nurses, representing the fourth class of the Gary General Hospital, were graduated after a training period of three years.

* * *

Four local dentists were admitted to membership in the Sullivan County Medical Society.

* * *

The Frank S. Betz Company, Hammond, had recently purchased the stock of Truax, Greene Company, of Chicago, at a bankruptcy sale.

* * *

Several Frankfort physicians had moved into the New People Life Insurance Building in that city.

Dr. Samuel Kennedy, and Katharine, of Shelbyville, were spending the month in Coronado Beach, California. (After twenty-five years they continue to be peripatetic!)

* * *

Dr. George W. Brown, Frankfort, had begun his fifty-second year of practice, during which time he occupied the same little building that he erected for office purposes immediately after having been mustered out of service in the Civil War.

* * *

Editor Bulson had discovered that Indiana was harboring a large number of trachoma cases and wanted something done about it. Most of these cases, he averred, were to be found in central and southern Indiana. Vigo County listed some 200 cases, while 100 were found in Indianapolis.

* * *

Editor Bulson also was somewhat perturbed by the new state primary law; said it was a curse rather than any sort of blessing.

* * *

An Indianapolis physician had advised friends and relatives that a patient suffering from nephritis had but a few hours to live. However, the patient recovered and went back to work, not losing any opportunities to "rib" said physician upon every occasion.

* * *

Dr. M. T. Jay, Bluffton, had quite a "brush" with the new Industrial Board, the controversy having been due to the fee allowed by the Board for professional services.

* * *

Hundreds of Gary citizens were made ill, due to drinking water from the city mains. Some local physicians, probably for want of a better name, termed the infection "winter cholera." The State Board of Health opined that the water should be filtered before using.

* * *

Dr. David C. Peyton, superintendent of the Indiana Reformatory, Jeffersonville, had written an excellent article for an Indianapolis newspaper, on "Principles of Prison Reform."

* * *

Indiana University School of Medicine advertised that thirty-six hospital appointments were open to its graduates.

* * *

Kis-Me gum ad again appeared in The Journal.

* * *

No back-fire broken arms reported among Indiana physicians in this number of The Journal.

President's Page

Dear Doctor:

The medical defense of this country seemingly is producing a very peculiar situation.

The military powers say that in addition to those in the regular service they will need about 8,000 doctors each year for five years, plus the 15,000 doctors in the reserve corps. They say that they are responsible only for the care of military personnel and that the American Medical Association is responsible for the care of the civilian population; and that when they have exhausted their pool of doctors, then the American Medical Association will have to supply the number necessary for the care for the military personnel.

The medical schools are graduating about 5,300 doctors each year. There are about 6,000 doctors dying each year. The selective service law says there can be no blanket deferment. Selective service is taking students who are enrolled in pre-medical courses, students in medical schools, doctors in internship, and doctors serving as residents. This means that there will be a shortage of doctors for the next several years.

This situation is becoming so serious that the presidents of the several universities discussed this subject at length at their recent meeting in Washington.

It seems to me that the old army game (passing the buck) is still a favorite pastime of the military forces. I would like to know how the American Medical Association can tell a doctor that he should be in the military forces.

I have heard a lot of talk about doctors on the local selective service boards passing men who are unfit for military service, and that the unfit who are sent in are rejected by the induction boards. The insinuation is that the doctors who are passing these men are heaping criticism on themselves, and that each man who passes their examination and who later becomes a ward of the government will cost the taxpayers between twenty and thirty thousand dollars.

On February 5, 1941, the trial of the American Medical Association began in Washington, the government alleging that the doctors have violated the anti-trust laws. This trial is in progress and the proceedings are printed in the Journal of the American Medical Association. I think it is your duty to read this recording each week.

Now, doctor, you know and I am sure the powers that be know that the national defense cannot succeed without the full cooperation and support of the medical profession; that the doctors give to the indigents all the care that they ask for; and that the government is asking for care similar to that of the indigents in this defense program—and still the governing powers want to destroy the one thing that is making it a success.

Very truly yours,

Morris Fishbein

UNDER THE CAPITOL DOME

NEED FOR ACCOMMODATIONS FOR THE CRIMINALLY INSANE

Public welfare and prison authorities say that one of the present needs in Indiana is provision for more adequate care and treatment of criminal insane persons.

The only place, they say, where these cases can be handled properly now is at the Indiana Hospital for Insane Criminals, an institution located within the walls of the Indiana State Prison at Michigan City, and it is considerably over-crowded. According to John H. Klinger, director of the Division of Corrections in the State Department of Public Welfare, the hospital is now caring for 292 patients. It has a capacity for only 270 patients.

Approximately seventy-five inmates in the state prison and in the Indiana Reformatory at Pendleton are what Mr. Klinger characterized as "definitely psychotic." Now receiving no special treatment, these men should be housed in a hospital for criminal insane, he said. As they are now, living with normal prisoners, they are a disturbing element and they present a constant problem to prison authorities. Special treatment would benefit these prisoners themselves and at the same time would relieve a bad situation.

One suggestion that is being made by the welfare and prison people is for the construction of a special building which would offer facilities for maximum security from escape. The proposal is to build it on the grounds of one of the five hospitals for mental cases operated by the state. The building, it was said, should have a capacity of about a hundred patients.

Psychotic prisoners who would be expected to respond to an active treatment program would be transferred from the prison and reformatory to the proposed special hospital, Mr. Klinger said.

Criminal insane patients now are receiving treatment at the Indiana Hospital for Insane Criminals, but not under optimum conditions, because no trained nurses are available at the institution, according to Mr. Klinger, who said that one of the needs there is for a trained supervising male nurse. It also has been suggested that the present guards stationed at the hospital be replaced by attendants who would work under direction of the supervising nurse.

STATE BOARD OFFICERS

All officers of the Indiana State Board of Medical Registration and Examination were re-elected at the annual meeting which was held in the Hotel Lincoln in Indianapolis on January 14. The officers are Dr. J. T. Oliphant, of Farmersburg, president; Dr. J. W. Bowers, of Fort Wayne, secretary; Dr. N. E. Harold, of Indianapolis, vice president, and Dr. W. C. Moore, of Muncie, treasurer. The board did not set a date for its next meeting, which, however, probably will be held during March.

Study of persons on the relief rolls of Marion county, picked out as typical of the urban population of Indiana by the Governor's Commission on Unemployment Relief, revealed that 9.8 per cent of them were physically or mentally handicapped.

The study was undertaken to determine why Works Projects Administration and the general relief program loads did not drop materially as a result of the industrial boom resulting from the national defense program. "The behavior of the trends in case loads in these programs has been puzzling to the public in general, and it has been especially difficult to understand why unemployment relief has not contracted at the same rate that employment increased," the investigators reported.

The mentally handicapped was a very small group which was due in part to the rigid definition of mentally handicapped. A person was so classified only if there had been some record of his handicap, such as a commitment to an institution.

"An analysis of the entire group of physically and mentally handicapped reveals that 44.1 per cent are over 50 years of age," the report said. "This concentration in the higher age group would reduce the effectiveness of a vocational rehabilitation program although no doubt it would prove beneficial to a part of the group," the report said. No information was obtained on the type of handicap which would throw light on the possibility of medical treatment as a means of rehabilitating the individuals physically.

The problem of the physically and mentally handicapped group is akin to that of the group of persons on relief who are too old to work in that both are cases of a permanent nature. The old age group composed 2.9 per cent of the persons on relief and for the most part were recipients of old age assistance.

This study would seem to indicate that although the physically handicapped is not very large, it is as great as the blind assistance group and on the basis of size would justify a special type of assistance, the report stated.

ENROLL NOW IN POSTGRADUATE COURSE IN OBSTETRICS

The next in the series of two-weeks postgraduate courses in obstetrics will be conducted from April 14 to 26, inclusive.

Applications should be sent to the offices of The Journal, or to Carl P. Huber, M.D., Resident Advisor, Coleman Hospital, Indianapolis, Indiana.

Deaths

Lawrence Hugh Gilman, M.D., Indianapolis, died January twenty-fifth, age forty-six years. Dr. Gilman specialized in neuropsychiatry and was a member of the staff of Indiana University Medical School where he was associate professor of Mental and Nervous Diseases. He graduated from the Indiana University School of Medicine in 1923 and was a member of the Indianapolis Medical Society, the Indiana State Medical Association, the American Medical Association, and the American Psychiatric Association. He was president of the Indianapolis Neuro-psychiatric Society. He entered military service in 1916 and served on the Mexican border until early in 1917; he served with the 149th field hospital in 1917 and 1918, being discharged with the rank of second lieutenant. Dr. Gilman was medical director of the W. B. Fletcher Sanitarium in Indianapolis.

* * *

Harry Alden Adams, M.D., died at his home in Indianapolis on January nineteenth. He was seventy years of age. Dr. Adams graduated from the Chicago Homeopathic Medical College in 1895.

* * *

Richard A. Anderson, M.D., of Vincennes, died on January twenty-second, aged sixty. Dr. Anderson graduated from the St. Louis University School of Medicine in 1906.

* * *

J. Roy Burlington, M.D., of Attica, died at the St. Elizabeth Hospital, Lafayete, on February second, aged sixty-five. Dr. Burlington graduated from The Central College of Physicians and Surgeons, Indianapolis, in 1897, and had practiced in Attica for almost forty-four years. In 1917 he volunteered for service and served as a lieutenant with the Medical Corps of the 150th Field Artillery, Rainbow Division. Later he was promoted to captain, and served with the AEF in France for eighteen months. He served on the Attica Board of Health for twenty-five years, and served as Fountain county coroner for two terms. Dr. Burlington was a member of the Fountain County Medical Society, was a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

George W. Combs, M.D., of Indianapolis, died on February eighth at the Methodist Hospital, where he had been a patient more than a year. He was eighty years of age. Dr. Combs graduated from the Medical College of Indiana, Indianapolis, in 1884 and specialized in proctology.

* * *

Frank T. Dowd, M.D., of Indianapolis, aged fifty-nine, died on January twentieth at his home. He had been ill for several months. Dr. Dowd graduated from the Medical College of Indiana, Indianapolis, in 1902.

* * *

George Hart Hansell, M.D., of Rising Sun, was found dead on January twenty-seventh. He was seventy-five years of age. Dr. Hansell graduated from the University of Cincinnati College of Medicine in 1910. He was an honorary member of the Dearborn-Ohio County Medical Society, a member of the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

Henry Grant Lind, M.D., of Edinburg, died on January twenty-first, aged fifty-nine. He graduated from the University of Virginia Department of Medicine, Charlottesville, in 1907.

* * *

John H. Maxwell, M.D., of Martinsville, died on January tenth. He was seventy-nine years of age. He graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1897.

* * *

Daniel Voorhees McClary, M.D., of Evansville, died at the Welborn-Walker Hospital on January thirty-first, aged seventy-three. Dr. McClary graduated from the Hospital College of Medicine, Louisville, in 1896. He served as a captain at Fort Leavenworth, Kansas, during the World War. He was a member of the Vanderburgh County Medical Society, a member of the Indiana State Medical Association, and a member of the American Medical Association.

* * *

Frederick Nussel, M.D., aged physician of Brazil, died at his home on January thirteenth. He was eighty years of age. He graduated from the Medical College of Indiana, Indianapolis, in 1891, and had been interested in obstetrics and gynecology. He served as secretary of the City Board of Health for several years. He was an honorary member of the Clay County Medical Society, a member of the Indiana State Medical Association, and was a member of the American Medical Association.

* * *

Carl C. Reifeis, M.D., of Indianapolis, aged forty-seven, died on January fifteenth at the Methodist Hospital. He graduated from the Indiana University School of Medicine in 1922.

* * *

Charles E. Spitler, M.D., of Saratoga, died on February second after a short illness. He was seventy-seven years of age. He graduated from the St. Louis College of Physicians and Surgeons. He was an honorary member of the Randolph County Medical Society, was a member of the Indiana State Medical Association, and was a member of the American Medical Association.

News Notes

Dr. and Mrs. A. G. Moore have located in Delphi where Dr. Moore will conduct a general practice.

* * *

Dr. Joseph W. Ricketts, of Indianapolis, has announced that his practice is limited to diseases of the rectum and colon.

* * *

Dr. Helen Richards Arterburn, practicing physician in Vincennes for the past several years, has gone to Pekin, Illinois, to practice.

* * *

At the annual meeting of the American Academy of Orthopedic Surgeons in New Orleans, January sixteenth, Dr. Oscar L. Miller of Charlotte, North Carolina, was inducted into the presidency, Dr. Carl E. Badgley of Ann Arbor, Michigan, was chosen president-elect, and Dr. E. B. Mumford of Indianapolis was re-elected treasurer.

* * *

Dr. Eugene L. Bulson has moved his offices from 406 West Berry Street to 102 Wayne Pharmacal Building, 347 West Berry Street, Fort Wayne, Indiana.

* * *

Dr. C. V. Rozelle of Anderson, chairman of the Committee on Industrial Health of the Indiana State Medical Association, attended the third annual congress on Industrial Health in Chicago in January.

* * *

Dr. Morse Harrod of Fort Wayne has completed fifty years of practice. A graduate of the Eclectic Institute in Cincinnati in January, 1891, Dr. Harrod practiced in southern Ohio for five years and then located in Fort Wayne. He is a member of St. Joseph Hospital staff and is one of ten Fort Wayne physicians who are more than 70 years of age.

* * *

Dr. Maurice O. Klingler has moved from Garrett, where he was associated with his father in the Garrett Clinic, to Plymouth where he is practicing surgery. Dr. Klingler has taken the office of the late Dr. Conroy Eley.

* * *

Dr. William Stanley Garner of Indianapolis and Miss Mary Jane Kemp of Indianapolis were married January eleventh.

* * *

Dr. H. F. Flannigan, who has been on active duty as a medical officer at Fort Benning, Georgia, has been relieved from active service and has returned to his practice at Lagrange.

Dr. Edwin W. Dyar of Ossian has announced his retirement from active practice because of ill health. He has sold his practice to his nephew, Dr. Wayne E. Hardin, who has been associated with Dr. Dyar for several months.

* * *

More than 300 physicians, interns, nurses, and medical students heard Major I. F. Peak when he spoke before the first meeting of the course in military medicine being presented at Indiana University School of Medicine. Major Peak's lecture described the manner in which army general hospitals are organized from the standpoint of departments, personnel and duties of the various officers.

* * *

Dr. Bela Schick of New York was given a gold medal, in recognition for his work in developing the Schick test for susceptibility to diphtheria, at the third annual forum on allergy held in Indianapolis in January. Approximately 150 allergists from throughout the nation attended the meeting, arrangements for which were in charge of Drs. C. B. Bohner and Bennett Kraft of Indianapolis.

* * *

Applications for the positions of Senior Pharmacologist, Pharmacologist, Associate Pharmacologist and Assistant Pharmacologist will be rated as received at the United States Civil Service Commission, Washington, D. C., until December 31, 1941. Forms may be obtained from the U. S. Civil Service Commission.

* * *

The year 1941 marks the seventy-fifth anniversary of Parke, Davis & Company of Detroit. The company had its inception in Detroit in a small drug store and has become one of the world's largest makers of pharmaceutical and biological products. In 1894, Parke, Davis & Company established the first commercial biological laboratory in the United States. Through the use of full-page advertisements in leading national magazines, Parke, Davis & Company are carrying on an advertising program with a "See Your Doctor" theme.

* * *

A consideration of workers' health in defense industries featured the sessions of the fourth annual meeting of the National Conference of Governmental Industrial Hygienists held at the National Institute of Health, February 17 and 18. Discussions concerning the present and possible activities of state health departments in improving industrial health were led by various state department heads, including Dr. L. W. Spolyar, director of the Bureau of Industrial Hygiene, Indiana State Board of Health.

Dr. Willis D. Gatch, dean of Indiana University School of Medicine, will be one of the guest clinicians for the St. Louis Clinics at the time of the annual clinical conference in St. Louis, March 10 to 13. The conference will be given by members of the medical profession of St. Louis, including faculty members of the two medical schools, St. Louis University and Washington University. In addition, speakers will include medical officers of the Army and the Navy, and other guest clinicians. A registration fee of ten dollars includes the round table luncheons. For details, address The St. Louis Clinics, 3839 Lindell Boulevard, St. Louis, Missouri.

NORTHERN TRI-STATE TO MEET

The Northern Tri-State Medical Association will meet in Tiffin, Ohio, at the Tiffin Theatre, April 8, 1941. The following men will appear upon the day's program, which begins at 9 a. m., E. S. T., and continues until 3:45 in the afternoon: Frederick F. Yonkman, M.D., Carl D. Camp, M.D., A. D. Ruedemann, M.D., E. Perry McCullagh, M.D., Roy W. Scott, M.D., George M. Curtis, M.D., W. D. Gatch, M.D., William N. Wishard Jr., M.D.

There will be a banquet in the evening at 6 p. m. at the Shawhan Hotel, followed by a lecture by Elliott P. Joslin, M.D., at 8 p. m., which will complete the day's program.

Dr. J. M. Jenkins of Cortland has been made an honorary member of the Jackson County Medical Society.

Applications for United States Civil Service examinations for senior medical officer, $4,600 a year; medical officer, $3,800 a year; associate medical officer, $3,200 a year; for Public Health Service Federal Security Agency, Food and Drug Administration Federal Security Agency, Veterans' Administration, Civil Aeronautics Administration, Department of Commerce, Indian Service, and Department of the Interior must be filed with the United States Civil Service Commission, Washington, D. C. They will be rated as received until further notice, and certification made as the needs of the service require, except that if sufficient eligibles are obtained, the receipt of applications may be closed, in which case due notice will be given.

A subsequent application will not be accepted from any applicant within 3 months of the date of receipt of his preceding application under this announcement.

When an applicant who has been rated eligible in this examination for any of the grades listed above files a subsequent application, but is found ineligible for a higher grade than that for which he has been rated, his application will be canceled and no additional rating will be assigned him in the grade for which he is already eligible.

On the recommendation of the Committee on Fellowships and Awards, the Board of Regents of the American College of Physicians, by unanimous resolution, has voted that the John Phillips Memorial Medal for 1941 be awarded to Dr. William Christopher Stadie, Associate Professor of Research Medicine at the University of Pennsylvania, Philadelphia, for his significant contributions to the knowledge of anoxia, cyanosis and the physical chemistry of hemoglobin, and more especially for his recent studies on the subject of fat metabolism in diabetes mellitus. This Award was established by the College October 27, 1929, to be given periodically for some outstanding piece of work in Internal Medicine. Internal Medicine in this instance is interpreted to include not only clinical science, but all of those subjects which have a direct bearing upon the advancement of clinical science. The work must have been done in whole or in part in the United States or in Canada.

Nominations for the Award are made to the Committee on Fellowships and Awards of the American College of Physicians. The recipient must file with the College a written account of his work, and to present his results as a paper before the next Annual Session, at which time the Award of a bronze medal is made by the President of the College.

REGISTRY OF MEDICAL TECHNOLOGISTS OF THE AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS MOVED FROM DENVER, COLORADO, TO MUNCIE, INDIANA

It has been announced that the Registry of Medical Technologists of the American Society of Clinical Pathologists has been moved from Denver, Colorado, to Muncie, Indiana. Since its organization in 1928 the Registry has been located in Denver, where its work has been carried on under the administration of its chairman, Doctor Philip Hillkowitz, and Mrs. Anna R. Scott, the registrar. The increasing burden of the office, together with a recent serious illness, prompted the resignation of Doctor Hillkowitz as chairman of the Board of Registry. His successor, who was chosen by the members of the Board to fill the vacancy, is Doctor Lall G. Montgomery, pathologist of the Ball Memorial Hospital, of Muncie, Indiana. The Registry will be situated at the hospital. The newly appointed registrar is Miss Carlita R. Swenson, who comes from Philadelphia, where she has been associated with the United States Pharmacopoeia.

This event in the history of the Registry is a reminder that over twelve years have passed since the first handful of registrants received their certificates from the Denver office. Since then, under the skillful and friendly guidance of Doctor Hillkowitz and Mrs. Scott and their associates on the Board of Registry, the number of registered Medical Technologists has increased to the present figure of 6,856. Twice a year this total is further

increased by the addition of several hundred successful candidates from the spring and fall examinations held by the Board.

A further rapidly increasing responsibility of the Board of Registry is the investigation and approval of schools for the training of Medical Technologists. The standards adopted for the approval of these schools have been raised gradually during the past twelve years and yet at the present time there are more than one hundred and fifty schools which have met all the requirements and therefore are approved for the training of student technologists. In this work the Board of Registry has received the assistance of the Council on Medical Education and Hospitals of the American Medical Association, who have very kindly assumed the expense and responsibility of making the surveys of the various schools who make application for approval.

INDIANA UNIVERSITY NEWS NOTES

The Indiana University School of Medicine has announced plans for a military medicine educational program said to be the first in the country and expected to be used later in many states as a part of the national defense program.

Open to all licensed practicing physicians in the state, the project started Friday night, Jan. 31, as part of the faculty seminar at the Medical School.

Major I. F. Peak, regular army military corps officer assigned to the R. O. T. C. unit of the school, gave the first lecture. He discussed operation of army general hospitals and the feasibility of such hospitals in connection with regularly established medical centers comparable to the Indiana University group of hospitals.

The postgraduate education committee of the school, following consultation with the United States Army surgeon general and staff, decided upon the course to enable practicing physicians to familiarize themselves with medical problems which may be expected as a result of the national emergency.

Ensuing lectures will be offered weekly or bimonthly, depending upon interest shown by Indiana licensed physicians, Dr. C. J. Clark of the postgraduate education committee said. The course subsequently may develop into one offering detailed education in military medicine dealing with control of pestilence, emergency treatment and surgery of wounded soldiers and civilians, and other phases of war-time activity, Dr. Clark said.

Infantile paralysis, entailing protracted periods of confinement and danger of contagion, principally was the cause of a reduction of 108 patients in the total admissions to James Whitcomb Riley Hospital of the Indiana University Medical Center during the year ending July 1, 1940.

J. B. H. Martin, administrator of the Indiana University Medical Center, disclosed the reduction of total admissions in a report submitted to the joint executive committee of the hospital. Admissions for the year totaled 3,755, including 1,031 emergency cases.

At the same time the admitting department of the entire medical center, including William H. Coleman Hospital for Women and Robert W. Long General Hospital, reported that the center has been at capacity peak for several days, indicating an almost unprecedented demand on hospitals throughout the state.

Dr. John Van Nuys, medical director, pointed out that the university hospitals are equipped primarily to handle specialized cases which can not as readily be taken care of in local hospitals throughout the state. An increase of requests for the university hospitals to handle the more common types of hospital patients indicates that all institutions are under considerable pressure for service, he said.

In reporting the reduced total of admissions to Riley hospital, Mr. Martin pointed out that a number of minor operations which normally would be performed in the hospital were performed elsewhere, not only because the infantile paralysis emergency taxed the hospital, but because physicians desired to reduce danger of contagion to a minimum.

Longer hospitalization of patients is reflected in the report that total patient days amounted to 83,253, an increase of 1,563 over the preceding year. The daily average population for Riley hospital, including the Rotary Convalescent Home, was 227.4 patients. The average stay per patient was 22.7 days. This is an increase of 1.1 days over the preceding year, the administrator said.

All counties in the state received service from the hospital, Mr. Martin said.

In addition to the admission of 3,755 out-patients, the hospital served 21,642 out-patients, an increase of 183 over the previous year, to reflect further the effect of the wave of infantile paralysis.

The Child Health Clinic established by the Marion County Department of Public Welfare and the Children's Bureau of the Indianapolis Orphans' Home examined 1,683 patients, the report stated.

The Child Guidance Committee, established September 1, 1940, studied 163 children between the opening date and January 1, Martin said. This clinic, it was pointed out, is the newest at the medical center and was set up to assist children through studies of their behavior problems.

The physical therapy department served 10,449 visitors, an increase of 1,762. The cerebral plasy clinic served 9,223 visitors, a decrease of 1,486, and the occupational therapy gave 18,112 treatments to crippled children, an increase of 322 over the previous year.

SOCIETIES AND INSTITUTIONS

EXECUTIVE COMMITTEE
INDIANA STATE MEDICAL ASSOCIATION

January 19, 1941

Meeting called to order at 9:30 a. m.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; A. M. Mitchell, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Dr. C. A. Nafe was re-elected unanimously chairman of the Executive Committee upon the motion of Dr. Mitchell, seconded by Dr. McCaskey.

Minutes of the meeting of December 1, 1940, approved upon the motion of Dr. Mitchell, seconded by Dr. McCaskey.

The statements of Receipts and Expenditures for December for the association committees and for November and December for The Journal were approved.

MEMBERSHIP REPORT:

Number of members Jan. 16, 1941.....1132 (53 hon. mems.)
Number of members Jan. 16, 1940.....1017
Gain over last year..... 115
Number of members Dec. 31, 1940.....3189 (90 hon. mems.)

TREASURER'S OFFICE

Dr. Weyerbacher spoke of the fact that $6,000 worth of bonds had matured and this money must be re-invested. The committee felt that this should be put in government bonds.

Dr. Weyerbacher reported that he had received a letter from the Metropolitan Trust Company of Chicago, in answer to an inquiry from him, stating that Rokeby certificates are being quoted at $19.00 per unit and Beachton Court at $19.50 per unit. The letter further states, "It is our understanding that these figures are being used for valuation purposes and you are aware that the quotations do not necessarily represent the worth of the certificates."

1940 ANNUAL SESSION AT FRENCH LICK

Dr. Dillinger, the general chairman, is to have his final report in to the Executive Committee in time for the next meeting. He contemplates a return of something more than $100 to the association.

1941 ANNUAL SESSION AT INDIANAPOLIS

The general arrangements for the meeting were approved by the Council. The local committee is composed of Dr. C. F. Thompson, chairman, Dr. Russell Sage, and Dr. Norman Beatty.

Commercial exhibit announcements will be mailed in February.

LEGISLATIVE, LEGAL AND SOCIAL SECURITY MATTERS
National

Senator Wagner again introduces a health measure in Congress. Senator Capper sponsors another Epstein bill.

ORGANIZATION MATTERS

The committee was informed that the organization of the LaPorte-Starke County Medical Society had been proposed. Officers of these county societies have been informed as to how to proceed in bringing about this organization.

STATE BOARD OF HEALTH

The committee was informed of the action taken by the State Board of Health in regard to the revocation of the approval of the Clark County Memorial Hospital laboratory as a laboratory for making the blood tests in premarital and prenatal examinations.

GROUP HOSPITALIZATION AND MEDICAL SERVICE PLANS

Committee informed that medical service plans are being sponsored by the New Jersey and Ohio State Medical Societies.

Reprint of article that appeared in the May 17 issue of the Eastern Underwriter, making a clinical study of non-profit medical insurance plans, brought to the attention of the committee.

MEDICAL ECONOMICS

Complaint of physician in regard to county public health nurses sending patients to tuberculosis hospitals without approval or knowledge of the patients' physicians brought to the attention of the committee. The committee instructed the secretary to send copies of this complaint to the State Board of Health, the Tuberculosis Association, and the chairman of the Anti-Tuberculosis Committee of the state medical association.

Committee informed that the Lake County Medical Society desired information from the University Hospitals in regard to various patients who had been committed to the various hospitals. The

ABSTRACT

ERUPTION DUE TO WRIST WATCH STRAP

A case in which a wrist watch strap which had been worn continuously for two months with no evidence of sensitivity suddenly caused a skin inflammation is reported by W. W. Bauer, M.D., Chicago, in *The Journal of the American Medical Association* for February 1.

The strap was made of a new synthetic, flexible, glass-like substance sold under a variety of trade names. It was responsible for intense itching and redness of the skin in contact with the watch band, followed by a definite eruption which the author thinks may have been precipitated by the patient's spending four hours in conference in an excessively hot room, during which time he perspired rather freely.

The patient has had hay fever since the age of three and is also sensitive to vegetables of the cabbage family and to certain fabrics.

committee stated that in its opinion this information should be made available to the Lake County Medical Society.

MEDICAL RELIEF

The committee was informed that the state Medical Relief Committee had no objection to the following resolution which had been adopted by the Township Trustees Association:

"Whereas, there is often confusion over delay in notifying Township Trustees of alleged claims for emergency medical and hospital care at township care, that such delay prevents prompt investigation and that there should be a limitation on the time for notice to the Township sought to be held liable.

"Therefore be it resolved, that we urge passage of a statute requiring notice within 3 days from the time any alleged township liability has arisen to the township sought to be charged."

Monthly reports of WPA cases for November and December brought to the attention of the committee.

SICKNESS INSURANCE AND SOCIALIZED MEDICINE

Dr. E. F. Boggs of Indianapolis is to be invited to the next meeting of the Executive Committee at which time he is to outline a plan he has to offset any national form of socialized medicine.

Bulletins from the Group Health Cooperative, Inc., a group sponsored by Kingsley Roberts, brought to the attention of the committee.

MILITARY PREPAREDNESS

Criticism in regard to the physicians of Indiana making competitive examinations of draftees brought to the attention of the committee.

The War Department turned down the proposal that barbiturates be placed in soldiers' kits. It was feared that if barbiturates were placed in soldiers' kits, they would be used indiscriminately by soldiers.

STATE BOARD OF MEDICAL REGISTRATION AND EXAMINATION

The State Board has received petitions from the Better Business Bureau for the revocation of the licenses of the following: Robert B. McAlpin; Emma E. Martin, M.D.; J. R. Scherer, and Madge Louise Patton Stephens, M.D.

LOCAL SOCIETIES

1941 Officers

(Numerous reports were published in the January and February issues; these additional reports have been received since publication of those issues.)

HANCOCK COUNTY MEDICAL SOCIETY:

President, H. K. Navin, Fortville.
Vice-president, Thomas Pierson, New Palestine.
Secretary-treasurer, R. E. Kinneman, Greenfield.

JACKSON COUNTY MEDICAL SOCIETY:

President, Harold E. Miller, Seymour.
Vice-president, W. H. Shortridge, Seymour.
Secretary-treasurer, G. H. Kamman, Seymour.

JEFFERSON COUNTY MEDICAL SOCIETY:

President, E. C. Cook, Madison.
Vice-president, Carl Henning, Hanover.
Secretary-treasurer, O. A. Turner, Madison.

LAGRANGE COUNTY MEDICAL SOCIETY:

President, Harry G. Erwin, Lagrange.
Vice-president, W. O. Hildebrand, Topeka.
Secretary-treasurer, F. M. Nichols, Topeka.

PERRY COUNTY MEDICAL SOCIETY:

President, E. E. Schriefer, Cannelton.
Vice-president, J. E. Taylor, Leopold.
Secretary-treasurer, B. V. Lally, Tell City.

WELLS COUNTY MEDICAL SOCIETY:

President, George B. Morris, Bluffton.
Vice-president, H. Brooks Smith, Bluffton.
Secretary-treasurer, William A. Gitlin, Bluffton.

LOCAL SOCIETY REPORTS

Bartholomew County Medical Society members held a meeting on January twenty-ninth at the Bartholomew County Hospital. Mr. D. R. Marlow of the Indiana State Board of Health spoke on "Local Milk Conditions." Fifteen members attended this meeting.

* * *

Clay County Medical Society members met at Brazil on February fourth. Nine members were in attendance. The evening was devoted to a discussion of the legislative program, and a report was given on the Secretaries' Conference held in Indianapolis on January nineteenth.

* * *

Dearborn-Ohio County Medical Society members held a meeting on January thirtieth at the Right Restaurant, Aurora, Indiana. The meeting was devoted to a discussion of timely topics. Thirteen members were in attendance.

* * *

DeKalb County Medical Society members met at the Auburn Hotel on January seventh for the election of officers. Twenty members attended this meeting.

* * *

Delaware-Blackford County Medical Society members held a meeting on January twenty-first at Hotel Roberts, Muncie. Forty-nine members and ten guests were in attendance. Motion pictures were shown on the subjects of "Human Fertility" and "Latest Developments on Methods of Contraception."

Elkhart County Medical Society members held a dinner meeting on January ninth at Hotel Elkhart. Dr. Charles B. Puestow, of Chicago, spoke on "Pre-operative and Post-operative Care of Patients."

* * *

Fayette-Franklin County Medical Society members met at the McFarlan Hotel, Connersville, on February eleventh. Dr. Percy E. McCown, of Indianapolis, spoke on "The Cause and Treatment of Stone in the Kidney." Seventeen members were present.

* * *

Floyd County Medical Society members held a dinner meeting at Woolworth's Cafeteria on January tenth. Dr. John P. Gentile read a paper on "Skin Test of Tuberculosis."

* * *

Fort Wayne (Allen County) Medical Society members met on January twenty-first at the Chamber of Commerce Building. Captain Glen Ward Lee, Medical Advisor to the Indiana Selective Service system, spoke on "The Expanding Field of Examination for Selective Service." Forty-four were in attendance.

On January twenty-eighth a business meeting was held, with twenty-two members in attendance. Motion picture films were shown on the following subjects: "Radium Treatment of Carcinoma of the Cervix" and "Colles Fracture."

The February fourth meeting was in the nature of a symposium on Oxygen Therapy. Dr. Lyman T. Meiks, of Indianapolis, discussed the "Physiology and the Clinical Indications for Oxygen Therapy," and Mr. J. I. Banash, a Chicago consulting engineer, demonstrated the various mechanical appliances for use in the administration of oxygen.

* * *

Clinton County Medical Society members met at the Clinton County Hospital, Frankfort, on February fourth. Ten members were in attendance. Dr. J. Neill Garber, of Indianapolis, gave a paper entitled "Diseases of the Hip—by Age Groups."

* * *

Fort Wayne Academy of Medicine and Surgery members marked the anniversary of the founding of their organization by holding a dinner-dance at Hotel Indiana on January sixteenth.

* * *

Fountain-Warren County Medical Society members held a meeting at the Mudlavia Hotel, Kramer, on January second. Dr. A. J. Fletcher, of Danville, Illinois, spoke on "The Care of the Premature and the Newborn Infant." Fifteen members attended this meeting.

At a meeting held on February sixth, Drs. Wemple Dodds and George Collett, of Crawfordsville, spoke on "Uterine Bleeding," Dr. Dodds presenting the pathology, and Dr. Collett presenting the clinical aspect of the subject. Thirty-one members were present.

Gibson County Medical Society members met at the Emerson Hotel, Princeton, on January thirteenth, with an attendance of twenty members. Howard M. Henderson, of the Baxter Laboratories, discussed "Some of the Practical Aspects of Fluid Administration—Blood Transfusion, Blood Banking, Plasma Fusions, and Plasma Banking."

At a meeting held on February tenth, Dr. Willis L. Pugh, spoke on "Painful Feet," and Dr. Joseph C. Lawrence, of Evansville, spoke on "Diagnosis and Treatment of Bone-joint Injury Without Fracture." A report was also given on pending legislation. Twenty members were present.

* * *

Grant County Medical Society members met at the Marion General Hospital, Marion, on January twenty-third for a dinner meeting. A sound movie was presented by J. C. Byrne, of Logansport, on "Gonadogen — Preparation, Action and Uses." Thirty-two members attended this meeting.

* * *

Green County Medical Society members held a meeting at the Freeman County Hospital, Linton, on January sixteenth. A representative of the American Medical Association discussed "Plans and Problems of Hospital Organization in Respect to American Medical Association Recognition." Ten members were present.

* * *

Hamilton County Medical Society members met at Noblesville on January fourteenth. Dr. J. W. Hendricks, of Indianapolis, was the speaker of the evening. Fifteen members were present.

* * *

Hancock County Medical Society members held a meeting on January eighth with fourteen members in attendance. Dr. Ernest Rupel, of Indianapolis, spoke on "Evaluation of Urinary Antiseptics."

* * *

Howard County Medical Society members met at Kokomo on January tenth. The speaker of the evening was Dr. Percy E. McCown, of Indianapolis, who discussed "Etiology and Treatment of Ureteral Calculi." Twenty-two members attended this meeting.

* * *

Huntington County Medical Society members met on January seventh, being addressed by Dr. Ira E. Perry, of North Manchester, on "The Treatment of Gall Bladder Ailments."

* * *

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club on January fourteenth. This meeting was conducted as a symposium on "Arthritis," the various phases being discussed by Drs. William King, H. C. Ochsner, William Woods, Don D. Bowers, and Cecil Rudesill.

The meeting held by the Indianapolis Medical Society on January twenty-eighth was given in tribute to the memory of Dr. William Niles Wishard, Sr., internationally known physician and surgeon, who died on January twenty-third. Physicians who joined in the eulogy were Drs. Willis D. Gatch, James O. Ritchie, Cleon A. Nafe, and Charles W. Myers. Mr. Thomas A. Hendricks, executive secretary of the Indiana State Medical Association, James A. Noel, attorney and close friend of Dr. Wishard, and Dr. George Arthur Frantz, pastor of the First Presbyterian Church, also joined in the tribute.

On February fourth the meeting was devoted to case reports presented by Drs. J. H. Hawk, Ralph J. McQuiston, J. S. Browning, Paul Merrell, and A. Ebner Blatt.

The February eleventh meeting was addressed by Dr. R. N. Harger on "Poisonings, Real and Imaginary," and by Dr. Franklin B. Peck on "Treatment of Diabetes."

* * *

Jasper-Newton County Medical Society members met at the Methodist Church, Kentland, on January twenty-fourth. Dr. C. J. Clark, of Indianapolis, gave a talk on "Hypertension." He was assisted by Dr. D. E. Wood, of Indianapolis, who showed picture slides illustrating experimental work being done at the Indianapolis City Hospital, and the reactions of the drug used. Sixteen members and guests attended.

* * *

Lagrange County Medical Society members held a meeting at the home of Dr. C. H. Schulz, of LaGrange, on January tenth.

* * *

LaPorte County Medical Society members met at the Spaulding Hotel, Michigan City, on January sixteenth. Dr. H. B. Mettel and Miss Wartzler of the Indiana State Board of Health spoke on "Medical and Public Health Aspects of the Premature Infant Program" and "Nursing Care of the Premature Infant." Twenty members attended this meeting.

* * *

Madison County Medical Society members held their monthly dinner meeting at the Y.M.C.A. at Anderson on January twentieth. Dr. A. F. Weyerbacher, of Indianapolis, was the principal speaker of the evening, his topic being "Romance and Venereal Disease."

* * *

Madison County Medical Society held its meeting February seventeenth at the Y. M. C. A. Guest speaker was Dr. E. Rogers Smith of Indianapolis.

* * *

Marshall County Medical Society members met at the Highway Inn, Plymouth, on February fifth for a luncheon meeting. Dr. Richard B. Stout, of Elkhart, discussed "Spinal Anesthesia."

Miami County Medical Society members held a meeting on January thirty-first at the Miami County Hospital. Dr. Howard B. Mettel, of Indianapolis, was the speaker of the evening, his subject being "Diagnosis and Prevention of Contagious Diseases in Children." Motion pictures were shown. Nine members attended this meeting.

* * *

Muncie Academy of Medicine members held a meeting on January thirteenth at Hotel Roberts, Muncie. Dr. Willis D. Gatch, of Indianapolis, spoke on "Etiology and Treatment of Cholecystitis."

At a meeting held on February eleventh, Dr. Charles F. McKhann, of Boston, Massachusetts, spoke on "Progress in the Control of Respiratory Infections."

* * *

Northeastern Indiana Academy of Medicine met at The Publix, Kendallville, on January thirtieth. Dr. A. J. Sparks, of Fort Wayne, was the principal speaker, giving an informative discussion on selective service activities.

New officers to assume office next fall were named as follows: President, Dr. M. O. Klingler, Garrett; Vice-president, Dr. R. A. Nash, Albion; Secretary-treasurer, Dr. A. L. Fipp, Rome City.

* * *

Parke-Vermillion Medical Society members held a meeting at the Vermillion County Hospital on January fifteenth. Dr. Walter Stoeffler, of Indianapolis, gave a talk on "Common Intestinal Disturbances of Children." Eleven members attended this meeting.

* * *

Pike County Medical Society members held a meeting at Petersburg on January first. Officers were elected for the ensuing year.

* * *

Rush County Medical Society members met at the Lollis Hotel, Rushville, on January ninth. Dr. Kenneth G. Kohlstaedt, of Indianapolis, gave a paper entitled "Chemotherapy of Pneumonia." Fourteen members were in attendance.

* * *

Tippecanoe County Society members held a meeting at Lincoln Lodge, Lafayette, on January fourteenth. Professor M. D. Steer, Director of Speech Clinic at Purdue University, spoke on the subject of "Management of Speech Defects." Pictures were also shown. Thirty-five members attended this meeting.

On February eleventh a meeting was held at which Dr. M. H. Mothersill, of Indianapolis, spoke on "The Later Chemotherapy of Today." Forty members were in attendance.

* * *

Tipton County Medical Society members met at the Elks Home, Tipton, on January seventeenth. Officers were elected.

Vanderburgh County Medical Society members met at the new office building of the Mead-Johnson Company on January fourteenth. Drs. S. L. Johnson, G. Willison, John Cassidy, T. Reitz, and S. Wishart, of Evansville, spoke on "Electro-cardiography," including case reports. Seventy members attended.

* * *

Vigo County Medical Society members held their ninety-fourth annual dinner meeting at the Elks' Club on January fifteenth. Following the dinner and installation of officers, a "gridiron" session was presented by the program committee.

* * *

Wabash County Medical Society members met at Indiana Hotel on February fifth. Dr. E. W. Williamson, assistant director of the American College of Surgeons, was the principal speaker of the evening. Twenty-four members were in attendance.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, December 1940

Diseases	*Dec. 1940*	*Nov. 1940*	*Oct. 1940*	*Dec. 1939*	*Dec. 1938*
Tuberculosis	86	126	113	83	202
Chickenpox	459	390	166	393	492
Measles	99	78	35	30	53
Scarlet Fever	431	392	200	654	765
Smallpox	5	1	4	16	182
Typhoid Fever	10	7	15	4	13
Whooping Cough	59	88	74	196	66
Diphtheria	43	74	33	102	108
Influenza	1,422	22	21	73	73
Pneumonia	75	44	36	85	107
Mumps	132	126	35	244	137
Poliomyelitis	11	63	89	2	0
Meningitis	1	3	6	5	5
Trachoma	2	1	0	0	0
Tularemia	46	30	0	40	111
Encephalitis	1	0	0	1	0
Undulant Fever	6	4	1	9	1
Septic Sore Throat	2	2	2	5	0

Monthly Report, January, 1941

DISEASES	*Jan., 1941*	*Dec., 1940*	*Nov., 1940*	*Jan., 1940*	*Jan., 1939*
Tuberculosis	84	86	126	74	123
Chickenpox	422	459	390	336	706
Measles	277	99	78	38	45
Scarlet Fever	488	431	392	667	986
Smallpox	8	5	1	25	296
Typhoid Fever	8	10	7	3	4
Whooping Cough	81	59	88	131	92
Diphtheria	51	43	74	70	99
Influenza	1547	1422	22	154	49
Pneumonia	146	75	44	117	110
Mumps	132	132	126	392	151
Poliomyelitis	5	11	63	3	0
Meningitis	3	1	3	4	6
Tularemia	9	46	30	30	14
Encephalitis	1	1	0	1	0
Undulant Fever	1	6	4	3	0

WOMAN'S AUXILIARY

President—Mrs. C. L. Bock, Muncie
President-elect—Mrs. E. O. Nay, Terre Haute
Corresponding Secretary—Mrs. T. R. Owens, Muncie
Treasurer—Mrs. M. W. Hillman, South Bend

For the second time during the current auxiliary year, Indiana has had the enjoyable privilege of entertaining Mrs. V. E. Holcombe, the national president of the Woman's Auxiliary to the American Medical Association. The first occasion, as you will remember, was at the time of the state convention at French Lick, in October. The second was the result of the fortunate choice of Indianapolis for a regional meeting of the Woman's Field Army for Cancer Control. The duties of a national auxiliary president would seem arduous enough to satisfy most of us, but Mrs. Holcombe seems to find time for other interests, and actively, too, for she was one of the speakers at a luncheon during the cancer control meeting.

Mrs. Fred E. Gifford, president of the Woman's Auxiliary to the Marion County Medical Society, planned a delightful luncheon in honor of Mrs. Holcombe on Monday, February 3, at the Indianapolis Athletic Club. Invitations were sent to the presidents of all county auxiliaries in Indiana, urging them to come and bring as many of their members as possible. Those who were able to come found it well worth the effort.

Following the luncheon, Mrs. Gifford introduced Mrs. Seletz, of Charleston, West Virginia, who had come from Charleston with Mrs. Holcombe to the Cancer Control meeting. Besides intense activity in the cancer work, Mrs. Seletz is chairman of the program and press and publicity committees of the West Virginia state auxiliary. Mrs. Seletz spoke very briefly. Mrs. C. L. Bock, our Indiana state president, then introduced Mrs. Holcombe, who spoke on health problems as related to auxiliary work. Mrs. Holcombe, herself, is intensely interested in the health conditions in her own county in West Virginia. Next year, when she is relieved of the rigid demands of her executive office, she plans to concentrate on the health interests of her own community and thoroughly investigate conditions there.

"As doctors' wives," said Mrs. Holcombe, "we should consider our auxiliaries as a college course in what to do and say about medical problems. We should be active in all health projects, and bring back to our organizations information about what other groups are doing along the line of health education. We should keep abreast of the progress in scientific medicine."

She then outlined the principal health problems we have to face in this country: Syphilis, which can be eliminated only by building up public opinion to demand its control; Maternal welfare, which can be improved by more widespread prenatal care and education of the mother in the care necessary pre-

ceding childbirth; Tuberculosis, which takes its greatest toll in youth, is more prevalent among girls than boys in youth, but in later years occurs more often in men than women, and is definitely more prevalent among Negroes than whites; Crippled children, who form the most appealing class of patients in health work, but who must be helped only under intelligent supervision, so that they will not feel that their handicap relieves them of the responsibility of making places for themselves in society; Cancer, whose early diagnosis is essential for effective treatment, and against which the Woman's Field Army for Cancer Control has already accomplished much; Home and driving accidents, which constitute two of our main problems in the educational field, because most of these accidents result from carelessness which greater education should help to eliminate; and Food and drug act supervision, which necessitates the cooperation of state governments with the federal for proper enforcement of food and drug laws.

Mrs. Holcombe closed her address by urging auxiliary members to remember the advice of John Wesley, when doing health work: "Do all the good you can, in all the ways you can, in all the places you can, at all the times you can, to all the people you can, as long as ever you can." And, as we applauded her, we felt that she, at least, was setting us all a good example.

Allen County Auxiliary is always active and enthusiastic. Their meeting on January 21 was held at the Lutheran Hospital in Fort Wayne, with forty-five present. Dr. E. M. Van Buskirk spoke to them about cults, Dr. C. B. Parker discussed the present form of the State Board of Health, and Dr. S. R. Mercer talked about the pure food and cosmetic act. The Allen County group is acting as a unit in doing Red Cross work.

At the dinner meeting of the Delaware-Blackford auxiliary, on January 21, in the Y.W.C.A. in Muncie, Miss Stella Orr, Y.W.C.A. secretary, spoke on "World Affairs."

The Elkhart County Auxiliary met in the Elkhart Y.W.C.A. on February 6, and heard an interesting book review by Mrs. Bowdoin. At this time, a group was organized to study legislation related to the Wagner Act. An advisory council was chosen from among the Elkhart County Medical Association members. Auxiliary members were asked to aid in the project, "Tuberculosis Education," begun by the Parent-Teacher Association and the Community Health Council.

At the meeting of the Vanderburgh County Auxiliary, in the Vendome Hotel in Evansville on January 24, a project was adopted, which the thirty-four members present hope to make a permanent one. They decided to start a loan fund for a pre-medical student at Evansville College. Plans are already under way for a benefit bridge party, February 21, the proceeds from which are to go into the scholarship fund.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"Your tact, cooperation and determination to protect the doctor at all cost have been surely demonstrated in this instance."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(52,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $33.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $66.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $99.00 per year

38 years under the same management

$1,850,000 INVESTED ASSETS
$9,500,000 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

BOOKS

MANUAL OF CLINICAL CHEMISTRY. By Miriam Reiner, M.Sc., Assistant chemist to The Mount Sinai Hospital, New York. 296 pages with 18 illustrations. Cloth binding. Price $3.00. Interscience Publishers, Inc., New York, 1941.

* * * *

MANUAL OF PHYSICAL DIAGNOSIS with Special Consideration of the Heart and Lungs. By Maurice Lewison, M.D., Professor of Physical Diagnosis, University of Illinois College of Medicine; Consulting Physician, Cook County Hospital; Attending Physician, Mount Sinai Hospital, Chicago; Formerly Attending Physician and Chief of Tuberculosis Staff, Cook County Hospital; and by Ellis B. Freilich, M.D., Associate Professor of Medicine, University of Illinois College of Medicine; Professor of Medicine, Cook County Graduate School of Medicine; Attending Physician and Chief of Tuberculosis Staff, Cook County Hospital; Consultant to the Chicago Municipal Tuberculosis Sanitarium; Attending Physician, University Hospital; Associate Attending Physician, Mount Sinai Hospital, Chicago. Collaboration with George C. Coe, M.D., Instructor of Medicine, University of Illinois College of Medicine; Associate Physician, Cook County Hospital; Clinical Assistant, Mount Sinai Hospital, Chicago. 317 pages with 75 illustrations. Cloth. Price $3.00. Year Book Publishers, Inc., Chicago, 1941.

* * * *

TREATMENT OF WAR WOUNDS AND FRACTURES. By J. Trueta, M.D., late Director of the Department of Surgery, General Hospital of Catalonia, Barcelona. 150 pages with 48 illustrations. Cloth. Price $2.50. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York, 1940.

BOOKS REVIEWED

A TREATISE ON MEDICOLEGAL OPHTHALMOLOGY. By Albert C. Snell, M.D., lecturer in ophthalmology, School of Medicine and Dentistry, University of Rochester. 312 pages, illustrated. Cloth. Price $6.00. The C. V. Mosby Company, St. Louis, 1940.

Dr. Snell needs no introduction to the ophthalmological profession. He has been known for years as a leading authority upon the medico-legal aspects of eye diseases. The first six chapters deal in a general way with the general concepts of medical jurisprudence. This section in itself would be a valuable adjunct to the library of any physician who is called upon for medical opinions in a court of law. The second portion embraces more technical information regarding the evaluation of visual disabilities. It is, however, exceptionally well written and should not require a comprehensive knowledge of ophthalmology in order accurately to understand it. The third portion deals with the practical aspects of the various tests which may be applied for visual disability. This work is in no sense a text book, but rather a reference for any practitioner who is called upon to examine and testify, especially before a board of industrial compensation.

E. W. D., Jr.

* * * *

VITAMIN THERAPY IN GENERAL PRACTICE. By Edgar S. Gordon, M.D., M.A., associate in medicine and instructor in physiologic chemistry, the University of Wisconsin; and Elmer L. Sevringhaus, M.D., FACP., professor of medicine, University of Wisconsin. 258 pages. Cloth. Price $2.75. The Year Book Publishers, Inc. Chicago, Ill., 1940.

This is a simple, terse condensation of the knowledge, as of recent date, of what is known and guessed at in the fast moving field of vitamins. To the busy practitioner, deluged by bales of commercial detail literature and not knowing fact from fancy, this is a welcome small volume.

Individual chapters deal in systematic manner with the chemistry, physiology, pathology, clinical pictures and therapy involved of each vitamin. They are succinct enough to each be read in a sitting and should serve to answer questions about intelligent prescription in diseases, as necessary. A service is rendered, no less great, in depicting where they need not or may not be prescribed. Other chapters deal with proteins, fats, carbohydrates and minerals. A couple of others, very useful, are upon applications in dentistry and obesity. Preventive medicine, so obvious and satisfying, in this field, is emphasized repeatedly; the practitioner may learn here of the many services that he can render his families in improving and insuring good health.

The book may be recommended for the office. In view of the tremendously rapid changes in nutrition, and especially vitamins, it may be regarded as no more than a marker on a road being very rapidly traversed.

H. B.

OBSTETRICS IN GENERAL PRACTICE. By J. P. Greenhill, B.S., M.D., F.A.C.S., professor of obstetrics and gynecology, Loyola University Medical School, Chicago. 448 pages. Cloth. Price $3.50. Year Book Publishers, 1940.

This book is quite a complete one on obstetrics. Based upon a large clinical contact, mostly in a famous maternity hospital, it is the book for the person who needs to refer and know quickly. It was obviously intended for the general practitioner and quite in reckoning and sympathy with his immediate needs. To expect to learn good obstetrics from merely concentrating upon this book, of course, is outright silly. One has to read in addition from a standard text-book; here, would be recommended the book by Dr. J. B. DeLee.

It is striking how completely all the common aspects, as well as some of the uncommon ones, are covered and excellently informable. A good feature are the numerous illustrations; the author wisely recognized the need for pictures and pictures which help. Whether such items as Cesaerian section and the more difficult and complicated obstetrical instrumental procedures may be wisely included in such a book for general practice is subject to a lot of argument.

It is commonly thought that no one has a right to do these procedures without special and prolonged training. Perhaps, there may be wisdom after all in including them, because there are places where only the general practitioner serves and he needs to know how to do—everything.

Finally, too much commendation may not be given the author for his sections on local anesthesia. A boon and a service to any patient, in nearly any situation, it is still to find its proper vogue.

H. B.

PRACTICE OF MEDICINE. By Jonathan Campbell Meakins, M.D., LL.D., professor of medicine and director of the Department of Medicine, McGill University; formerly professor of Therapeutics and Clinical Medicine, University of Edinburgh. Third edition. 1430 pages with 562 illustrations including 48 in color. Cloth. Price $10. C. V. Mosby Company, St. Louis, 1940.

This is the third edition of a general treatise on medicine which already has its place. It is mindful of the numerous changes in practice between editions. While there are several chapters by co-authors, the book is that of one man, one long familiar and experienced in the clinic and brought to maturity and understanding.

(Continued on page xxiv)

For the Local Treatment of Acute Anterior

URETHRITIS

(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE *

Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae. (1) An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph. Gon. & Ven. Dis., 23, 201 (March) 1939.

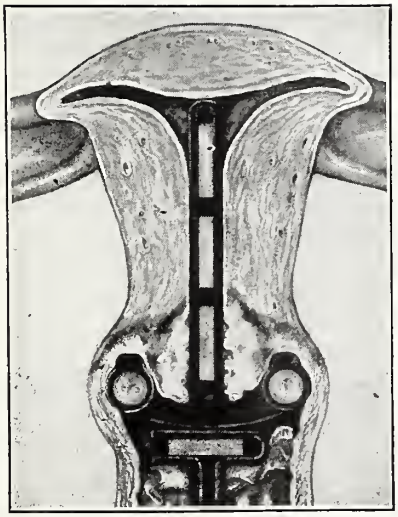
*Silver Picrate, is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

A complete technique of treatment and literature will be sent upon request

•

JOHN WYETH & BROTHER, INCORPORATED, PHILA.

IMPROVE YOUR RESULTS IN CANCER OF THE CERVIX



CONSISTENTLY high percentages of 5-year cures in Carcinoma of the Cervix are reported by institutions employing the French technique illustrated here. Ametal rubber applicators encase the heavy primary screens and provide ideal secondary filtration to protect the vaginal mucosa. Radium or Radon applicators for the treatment of Carcinoma of the Cervix and provided with Ametal filtration are available exclusively through us. Inquire and order by mail, or preferably by telegraph or telephone reversing charges. Deliveries are made to your office or hospital for use at the hour you may specify.

THE RADIUM EMANATION CORPORATION

GRAYBAR BUILDING Tel. MOhawk 4-6455 NEW YORK, N. Y.

(BOOKS REVIEWED—Continued from page xxii)

Outstanding, so as to be almost exceptional, is the fact that the book is profusely illustrated, by far out of the author's personal experience. While this may be debated pro and con, nevertheless, it does give the reader some insight into the common appearances of disease. Principles, patho-physiology, are well treated and all inclusive for most practical purposes. Thus, the book gets away from being just an elaborate compendium of symptoms and signs. It cannot be emphasized too strongly that the work of the pre-clinical years, in anatomy, in physiology, in pathology and all the rest, cannot be forgotten but must be used always in elucidating and treating a disorder. This book serves its purpose, in this respect, commendably. Good examples of this aspect may be seen in chapters upon diseases of the circulation, the heart and the lungs.

The book is pretty much all inclusive; it cannot escape the really impossible condition of covering everything. There are chapters which take up each system of the body in turn, leaving out practically none. Those on the cardio-vascular apparatus, the chest, the blood forming organs, the kidneys are especially excellent. Some of the material is possibly a little sketchy and needs to be filled in with other reading.

The introduction, missing from many other books, is the most personal touch of the writer. It is well worth repeated reading. Under etiologic factors, he does not touch upon psychogenic factors at all; in view of the fact that it is realized that almost one out of every two patients has some kind of neurotic disturbance, this amounts to almost a neglect of a very important aspect. The writer is given to some reflection, a little philosophic, but well in order. For example, consider his comment, "If we cannot specifically cure, the least we can do is to aid intelligently and not to hamper." How true, indeed.

The book can be recommended as one for use in entering into any novel and peculiar situation; it affords, usually, the first knowledge and insight that is necessary. It will very seldom fail.

It is a good book.

H. B.

ABSTRACTS

"MARCH FRACTURE" NOT LIMITED TO THOSE IN MILITARY SERVICE

March fracture, the name of which implies that the condition is associated with marching, may be seen in persons who are engaged in activities not connected with military service, Prentice L. Moore, M.D., and Allen N. Bracher, M.D., Major and Captain, respectively, United States Army Medical Corps, Hawaii, declare in the first issue of the new bimonthly periodical, *War Medicine*, published by the American Medical Association, Chicago, in cooperation with the National Research Council, Washington, D. C.

In reporting three such fractures, the two men say that "H. W. Meyerding, M.D., and G. A. Pollock, M.D., have well defined march fracture as 'a fracture of the second, third or fourth metatarsal bones without known adequate cause.' The consensus of medical writers on this subject seems to be that the onset of symptoms is usually insidious, beginning with mild discomfort or burning in the foot. This was not found to be the case with our patients, who ascribed their disability to a definite time and period of activity accompanied with sudden, almost disabling pain."

The authors point out that there are only scattered reports of a few cases of march fracture in the American medical literature. Discussing their three cases, they say that in two of them the fracture followed participation in athletics, particularly track work, and in the other it followed a night march.

As to symptoms of the condition, the two men say that swelling in the back part of the foot begins approximately twelve hours after the onset of pain. When pressure is made over the involved metatarsal bone, discomfort is intense and the patient walks with a noticeable limp. An area of redness of the skin over the fracture site may be present.

"All of the men afflicted with the fracture were vigorous, young and in an excellent state of health," they say in describing their three cases. "Two were seasoned soldiers and athletes. They walked into the dispensary when they first sought medical attention. With the scanty history they gave, each might have been treated for an injury to ligaments, a contusion or metatarsalgia. Flat feet or other structural inadequacies may or may not be a predisposing factor. In the cases reported here the patients all had normal arches."

The conclusions of the two men are that "the march fracture may occur in seasoned soldiers in an excellent physical condition and training when they are engaged in athletics and marches. The onset of symptoms is with appreciable, sudden pain in the involved foot. The pain, however, is not so severe as to be incapacitating. Fatigue, overweight, underdevelopment and functional disorders of the feet do not seem to be the underlying causes of this fracture."

They suggest that all foot complaints which fall into the category of metatarsalgias justify consideration of metatarsal fracture and the taking of an x-ray film.

RECOVERY OF CASE OF RARE INFECTION REPORTED DUE TO SULFAPYRIDINE

Sulfapyridine treatment resulted in the recovery of a patient with a rare type of blood stream infection, due to the bacteria, Bacteroides, heretofore an almost invariably fatal condition, Alex E. Brown, M.D., Henry L. Williams, M.D., and Wallace E. Herrell, M.D., Rochester, Minn., report in *The Journal of the American Medical Association* for Feb. 1.

The authors say that the use of sulfapyridine is of particular interest inasmuch as the sulfamido compounds have been considered not to be particularly effective against anaerobic organisms. Also, contrary to the authors' previous experience with the condition, the infection in the case they report was primary in nature and not superimposed on a chronic disease process.

ZEMMER
PRESCRIBE OR DISPENSE ZEMMER
Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc.
Guaranteed reliable potency. Our products are laboratory controlled.
Write for general price list.
THE ZEMMER COMPANY IN 3-41
Chemists to the Medical Profession. Oakland Station, Pittsburgh, Pa.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 APRIL, 1941 NUMBER 4

INDUSTRIAL HYGIENE ACTIVITIES OF THE INDIANA STATE BOARD OF HEALTH

LOUIS W. SPOLYAR, M.D.*

INDIANAPOLIS

Historically, industrial health hazards were recognized through the ages. Pliny referred to occupational diseases as diseases of the slaves. Georgeous Agricola in his "De Re Metallica" describes, as early as 1556, what is unquestionably complicated silicosis when he wrote as follows: "When the dust is corrosive, it ulcerates the lungs and produces consumption."

Although early writers recognized abnormal physical changes in workers of certain industries, the science of industrial medicine, as we know it today, did not develop until 1700 when Ramazinni published a detailed account of approximately 100 occupations and their associated diseases. For this he is known as the "father of industrial medicine."

Thus the existence of occupational diseases has been known for centuries, yet the systematic control and the preventive aspect of these diseases are of very recent origin. This is especially true in this country, since all attempts to control occupational diseases date back to the period after the first World War. In rapid succession the Division of Industrial Hygiene of the U. S. Public Health Service was formed; professional societies sprang up; compensation laws were passed; safety programs started; private agencies, such as the Air Hygiene Foundation, joined the movement; State Boards of Health and Labor created Bureaus of Industrial Hygiene; and various universities began researches and classes in industrial medicine. As a result of this concentrated effort by these various groups, accidents have decreased, surgical repair and curative industrial medicine has been reduced to a minimum, and preventive medicine is taking on added significance. Engineering control measures have been developed to the extent that most occupational diseases can be prevented. This fact, at this time, becomes increasingly important since the conservation of industrial manpower becomes a tremendously vital link in our National Defense Program. The pediatrician has gone a long way through his preventive medicine practices in the control of childhood diseases. The industrial physician can likewise, through the prevention of occupational diseases, eradicate a group of diseases that the average adult encounters.

Officially, Indiana's entry into this field was in 1937 and 1938 with the creation of the Labor Department and the Bureau of Industrial Hygiene of the State Board of Health. Soon after the creation of the Labor Department, it was given one of the most comprehensive occupational disease compensation laws in the country, in that any disease "arising out of and in the course of employment" is compensable. The law, because of its broadness, is known as a "blanket type" law in contrast to the "schedule law" of other states, wherein only certain diseases listed on the schedule are compensable. New processes and chemicals introduced in industry from time to time automatically fall within the "blanket" law of Indiana. Ten other states in the Union now have this type of law.

Indiana's official entrance into this field was predicated on the following facts[1]: Indiana is the ninth largest industrial state in the Union; there are approximately 4,000 plants in the state employing 464,000 people or 37% of the gainfully employed, however, this large industrial population is housed in small plants; 78.5% of the plants are of the size that employ less than 100 workers, and 96.8% of our plants employ less than 500 workers.

Further studies[2] of the medical facilities of the large and small plants showed that the small plant offers insurance, a first aid kit, and keeping of

* Chief, Bureau Industrial Hygiene.

[1] Spolyar, L. W.; Wiley, J. S.: Preliminary Industrial Hygiene Survey of Indiana Industries. Indiana State Board of Health Publication.

[2] Spolyar, L. W.: Medical Service in Indiana Industries. *J. Ind. State Med. Asso.*, 33:176-178, (April) 1940.

TABLE I

EXPECTED NUMBER OF PERSONS IN INDIANA EXPOSED TO INDICATED MATERIALS BASED ON DATA OBTAINED IN THE SURVEY

Material	*Total for all Industries*	*Extraction Minerals*	*Chemical and Allied*	*Cigar and Tobacco*	*Clay, Glass and Stone*	*Clothing and Allied*	*Food* and Allied*	*Iron and Steel*	*Metals* Other Than Iron and Steel*	*Leather*	*Furniture and Lumber*	*Paper and Allied*	*Textiles*	*Miscellaneous Manufacturing*	*Personal Services*
Total Employees—1930 U. S. Census	404,059	24,034	17,704	2,997	22,449	18,891	25,901	161,305	7,146	5,261	30,662	16,822	8,694	52,445	9,748
Metals (N. O. S.)	69,173	841	1,332	12	1,806	63	399	53,700	2,959	18	608	555	46	6,818	16
Dermatitis producers	42,540	659	1,027	1,097	768	107	11,601	16,700	366	863	2,400	1,020	348	5,030	554
Organic dusts	34,930	138	950	550	521	2,760	2,164	6,050	454	549	10,540	1,009	3,964	5,240	41
High humidity	21,287	82	488	96	326	1,170	6,102	1,720	94	324	337	355	2,886	2,727	4,580
Extreme temperature changes	9,522	216	1,550	...	2,851	12	1,831	1,350	381	21	87	50	5	1,154	14
Silica dust	11,566	3,884	147	...	2,460	4	10	1,395	458	51	2,510	17	1	625	4
Silicate dusts	20,200	736	885	9	3,390	118	688	9,420	413	51	840	233	45	3,210	162
Gases (N. O. S.)	18,887	991	928	...	1,970	25	1,550	9,820	547	100	260	372	26	2,235	63
Petroleum products	17,622	913	1,014	63	975	151	879	10,030	433	59	460	454	552	1,560	79
Non-siliceous dusts	17,689	1,210	241	12	4,186	22	161	7,830	716	92	507	93	31	2,570	18
Lead	11,886	20	413	...	188	8	112	3,590	840	21	258	2,565	19	3,850	2
Bituminous coal dust	22,478	16,968	226	9	949	64	686	2,240	82	38	435	124	42	437	178
Carbon monoxide	11,278	884	432	9	700	72	1,028	6,330	233	43	417	152	51	708	219
Organic solvents	8,093	...	788	...	391	52	188	1,750	215	66	880	2,130	45	1,130	458
Alkalis	4,689	5	576	...	254	29	1,033	1,060	206	49	46	88	43	910	390
Paints	4,543	10	395	...	229	2	66	2,290	412	5	552	74	7	497	4
Mineral acids	4,122	...	354	...	19	10	118	1,990	325	13	75	116	26	1,060	16
Oils (not petroleum)	3,721	...	251	...	25	...	303	2,290	146	128	235	81	12	242	8
Inks	3,011	...	120	...	32	31	137	150	11	95	60	2,237	28	84	26
Sulphur dioxide	3,578	352	145	9	362	45	483	1,030	49	38	332	92	31	468	142
Lacquers	3,227	...	75	...	19	...	11	1,130	139	3	1,128	47	13	650	12
Antimony	2,114	...	19	...	4	1	10	88	64	...	31	1,855	1	41	...
Chemicals (N. O. S.)	2,180	10	655	...	139	3	180	534	57	18	5	162	17	374	26
Infections	1,567	5	227	...	...	17	795	...	4	77	3	...	27	408	4
Dyes	1,548	...	36	...	31	24	17	54	...	230	576	127	243	190	20
Alcohols, esters and ethers	1,260	...	235	...	15	11	224	194	100	...	93	64	2	192	130
Salts (N. O. S.)	906	...	238	...	84	3	161	286	4	31	8	26	13	46	6
Coal tar products	1,020	...	165	...	138	...	53	138	84	3	11	15	...	413	...
Sulphur and compounds	1,038	...	140	...	218	...	1	56	70	...	3	6	...	530	14
Cyanides	1,059	...	6	...	...	...	...	560	132	...	31	20	...	310	...
Halogenated hydrocarbons	819	...	92	...	12	4	4	240	28	...	...	8	12	255	164
Chromium	753	...	9	...	...	...	...	378	93	5	20	13	...	235	...
Medicinals	438	...	181	3	16	2	29	150	7	3	5	1	5	36	...
Asbestos dust	469	...	82	...	233	...	1	140	11	...	...	...	...	2	...
Organic acids	477	...	45	...	7	6	54	50	6	36	...	67	2	84	120
Aldehydes	318	...	11	...	57	1	93	118	12	...	8	18	...	...	...
Benzene	308	...	20	...	25	...	...	30	62	...	38	71	...	26	36
Accelerators	468	...	...	...	15	...	...	24	20	...	3	...	...	406	...
Mercury	235	...	11	...	...	97	...	8	1	100	...	4	...	14	...
Aniline	248	...	9	...	...	8	...	2	...	69	7	28	30	79	16
Cadmium	239	...	...	...	6	...	...	76	39	...	8	...	...	110	...
Arsenic	165	...	37	...	113	...	...	...	10	...	...	...	...	5	...
Fluorides	133	...	16	...	65	...	...	...	47	...	...	...	...	5	...
Manganese	149	...	2	...	1	...	...	138	3	...	...	...	...	5	...
Chlorine	90	...	6	...	...	10	49	...	...	...	2	...	3	...	20
Selenium	43	...	...	...	43	...	...	...	...	...	...	...	...	...	...
Hydrogen sulphide	32	...	25	...	...	...	...	...	...	...	7	...	...	...	...
Anthracite coal dust	16	...	...	...	13	...	...	...	...	...	3	...	...	...	...
Amines	7	...	7	...	...	...	...	...	...	...	...	...	...	...	...
Phosphorus	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Radium	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* As the number of workers surveyed in the Food and Allied industry and the Metals Other than Iron and Steel industry was greater than the U. S. Census figure, the expected number of persons exposed is given as 100% of that obtained in the survey.

accident records as its medical service. The service in this group can be summarized by the simple phrase of "watchful waiting." Larger plants tend toward maintaining a more balanced medical service, as one can readily see by reference to Figure I.

The preponderance of small plants in Indiana is not unique for this state, but is a typical finding for the country. Newquist,[3] in his study of this problem for the American College of Surgeons in 1938, came to the conclusion that plants employing less than 500 people cannot economically render an adequate medical service. Newquist[4] states that the per capita cost for medical services for large plants ranges from 5 to 10 dollars, whereas the per capita cost for small plants is 10 to 15 dollars.

Morbidity, especially in the unskilled worker, has been shown to be 100% in excess of non-industrial workers in some instances in specific industrial groups.

Based on the study[1] previously referred to, 42,540 workers are potentially exposed to materials that are dermatitis producers, 11,566 are exposed to silica bearing dusts, 11,886 to lead, 11,278 to carbon monoxide, 8,093 to organic solvents, 819 to halogenated hydrocarbons, 308 to benzene, 235 to mercury, and 149 to manganese. Table I shows the expected number of persons in Indiana exposed to indicated materials.

As to existing control measures, this same study showed that generally accepted engineering procedures were not frequently used in the control of occupational diseases. Table II summarizes the findings for each exposure group. (See page 178.)

Thus, based on these facts and with the firm belief that a neutral fact finding agency could help immeasurably in the control of occupational diseases and absenteeism, did the Bureau of Industrial Hygiene of the State Board of Health come into being. It is hoped that this Bureau will be a service Bureau, as well as a clearing house of information for all groups interested in the control of occupational diseases. The value of the Bureau to the state will be in direct proportion to the use that is made of it.

ACTIVITIES OF BUREAU

To best administer a service designed primarily to control occupational diseases in Indiana industries, the Bureau functionally is composed of a medical, engineering and chemical department. These diversified fields are so integrated that all are used properly to evaluate a given problem. For example, suppose a manufacturer was concerned over the possibility of several of his employees contracting lead poisoning through their exposure to lead bearing dust. His control measures, which were home made, were thought to be inefficient. Medical studies, by this department or his physician, showed that a significant number of workers had sufficient physiological deviations from the normal to indicate early lead absorption. Urinary leads were significantly elevated and abnormal blood findings were present. No gross changes had occurred nor were there any classical symptoms exhibited. Atmospheric studies by the chemist showed the atmosphere to contain on an average of 4 milligrams of lead per 10 cubic meters of air. Engineering studies showed that the control measures were truly home made and not effective in that the design of the exhaust hoods and ducts were not proper and, further, air velocities attained in this present system were inadequate. Thus, through the study of the medical, chemical and engineering findings, we are in a position to state definitely that the working environment is hazardous and that better controls are needed. This Bureau can aid them in the design of control equipment and in instituting medical programs, as well as periodic chemical check-ups of the atmosphere.

Such consultation services are available to any interested group. Adequate space and equipment is available in the new State Board of Health Building to carry on these functions. Figure 2 shows a general view of our laboratory. (See page 179.)

FUNCTIONS OF BUREAU

Tersely told, the functions of the Bureau are: to study conditions of occupation with reference to hazards to health; to determine the degree of such hazards; to investigate, evaluate, and recommend the methods for the control of such hazards; to assist in the preparation of rules and regulations

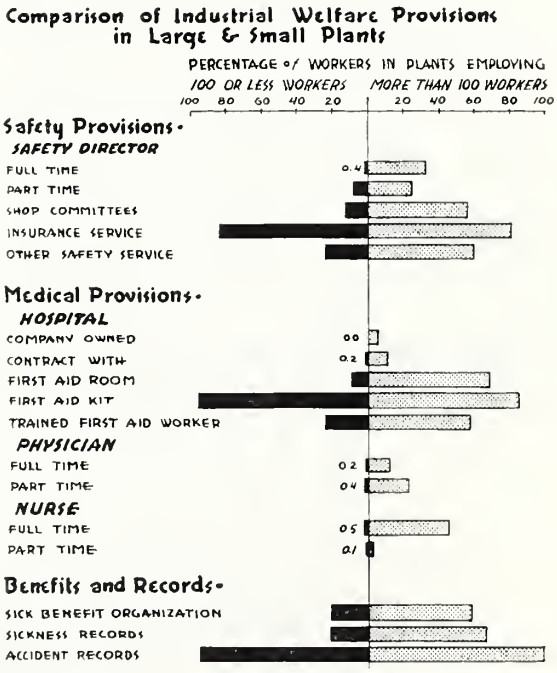


Figure 1.

[3] Newquist, M. N.: Medical Service in Industry and Workmen's Compensation Laws. American College of Surgeons, Chicago, 1938.

[4] Newquist, M. N.: Problem of Medical Service to a Small Plant. *Industrial Medicine*, 8:387: Sept. 1939.

TABLE II

PER CENT OF EXPOSED WORKERS HAVING CONTROLS IN ALL INDUSTRIAL AND SERVICE GROUPS SURVEYED

2,545 Plants, 247,817 Employees

Material	Number of Workers Exposed	Per Cent of Exposed Workers Having Indicated Type of Control											Per Cent of Exposed Workers Having One or More Controls
		General Ventilation		Local Exhaust	Enclosed Process	Wet Method	Gas Mask	Respirator		Air Line Respirator	Protective Clothing	Other	
		Positive	Negative					Approved Type	Not Approved				
Metals (N. O. S.)	36,549	1.8	5.4	14.8	1.5	16.0	.....	1.5	1.8	0.4	0.5	*	36.2
Dermatitis producers	27,599	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.5	0.1	3.5
Organic dusts	22,948	1.8	9.3	26.7	2.4	1.0	*	0.7	1.5	*	.....	*	38.6
High humidity	15,623	2.6	14.4	4.5	1.0	.....	.....	.....	.....	.....	0.4	0.4	19.9
Extreme temperature changes	12,921	4.2	5.9	4.8	0.3	.....	.....	.....	.....	.....	3.2	7.7	21.8
Silica dust	11,842	4.7	6.2	19.2	3.9	8.2	.....	6.9	4.4	0.8	*	0.2	44.5
Silicate dusts	11,312	3.1	3.9	19.9	1.3	10.5	.....	4.5	1.6	.....	*	.....	38.8
Gases (N. O. S.)	10,844	3.7	8.8	13.4	3.8	.....	1.5	.....	1.4	.....	.....	0.3	24.7
Petroleum products	10,067	1.1	1.4	1.8	2.0	0.2	.....	*	*	.....	0.6	.....	6.6
Non-siliceous dusts	9,647	2.1	5.0	22.5	4.9	14.1	.....	3.9	3.5	*	0.4	.....	48.0
Lead	6,884	1.6	11.2	17.7	4.1	2.1	.....	3.0	2.4	0.6	1.0	0.3	31.8
Bituminous coal dust	6,800	38.5	0.5	1.2	1.2	1.3	.....	2.6	1.1	.....	.....	.....	14.4
Carbon monoxide	6,364	1.9	2.8	6.9	2.3	.....	0.1	.....	0.6	.....	.....	0.1	12.7
Organic solvents	5,128	2.9	10.2	13.8	5.5	.....	.....	1.7	3.4	*	0.7	.....	30.6
Alkalis	3,209	1.8	10.7	13.3	6.4	*	.....	0.8	2.4	.....	8.1	1.7	32.3
Paints	2,741	5.4	7.2	38.2	1.2	*	0.1	6.1	12.7	0.3	*	.....	53.0
Mineral acids	2,381	2.3	16.3	23.9	5.5	*	0.3	*	1.2	.....	16.6	3.1	51.7
Oils (not petroleum)	2,200	0.7	2.7	5.6	1.0	.....	.....	.....	0.4	*	0.7	.....	9.7
Inks	2,134	3.8	4.8	3.4	.....	.....	.....	.....	.....	.....	.....	.....	11.2
Sulphur dioxide	2,115	*	1.8	2.5	4.3	.....	0.2	.....	0.5	.....	.....	.....	8.9
Lacquers	1,808	0.4	3.8	52.8	5.1	.....	.....	3.3	14.2	0.3	0.6	.....	60.9
Antimony	1,506	1.8	23.7	25.3	5.6	*	.....	.....	0.6	.....	.....	.....	42.9
Chemicals (N. O. S.)	1,494	4.2	7.8	2.5	0.5	.....	.....	0.5	0.3	.....	*	0.1	12.4
Infections	1,248	.....	0.4	0.4	.....	.....	.....	.....	.....	.....	2.9	.....	3.3
Dyes	971	.....	5.3	18.8	1.1	.....	.....	0.4	2.9	.....	1.2	0.3	25.1
Alcohols, esters and ethers	901	5.7	23.5	12.1	5.1	.....	0.1	.....	1.5	.....	1.1	3.2	37.4
Salts (N. O. S.)	650	0.9	1.5	8.2	0.8	.....	.....	3.8	5.5	.....	1.8	.....	20.5
Coal tar products	638	0.2	10.0	27.9	0.5	.....	.....	1.7	0.2	.....	0.8	.....	40.3
Sulphur and compounds	606	1.7	21.3	23.9	2.8	0.3	.....	5.1	10.2	.....	.....	4.5	48.3
Cyanides	579	4.3	31.4	59.6	12.1	0.5	1.0	.....	5.0	.....	5.5	4.3	70.6
Halogenated hydrocarbons	452	3.5	12.8	21.9	6.6	.....	0.9	.....	3.6	0.7	1.6	.....	41.6
Chromium	411	.....	9.7	68.1	.....	0.5	.....	0.5	1.2	.....	4.1	4.4	73.5
Medicinals	318	.....	6.3	17.0	3.8	.....	.....	.....	12.9	.....	0.9	.....	25.5
Asbestos dust	315	.....	19.7	19.7	8.3	.....	0.6	0.3	2.5	.....	.....	.....	37.1
Organic acids	296	0.7	23.0	15.9	2.0	.....	.....	.....	6.4	.....	3.0	1.0	39.5
Aldehydes	232	.....	6.9	16.8	6.9	.....	.....	.....	4.3	.....	0.4	.....	27.6
Benzene	215	2.8	31.2	10.2	3.3	.....	.....	.....	7.5	.....	2.8	.....	47.4
Accelerators	213	4.7	42.3	61.0	.....	.....	.....	.....	.....	.....	.....	.....	80.8
Mercury	154	.....	60.4	3.9	2.6	1.9	.....	.....	.....	.....	5.2	.....	65.6
Aniline	136	4.4	8.1	6.6	.....	.....	.....	.....	2.9	.....	2.9	1.5	19.1
Cadmium	132	.....	18.9	68.2	0.8	.....	.....	.....	3.0	.....	11.4	.....	76.5
Arsenic	122	3.3	1.6	32.0	13.9	2.5	.....	.....	55.7	.....	9.0	.....	72.1
Fluorides	107	6.5	8.4	16.8	1.9	.....	.....	.....	15.9	.....	25.2	.....	44.9
Manganese	77	2.6	3.9	24.7	.....	.....	.....	.....	27.3	.....	.....	.....	51.9
Chlorine	77	3.9	20.8	28.6	7.8	.....	7.8	.....	1.3	.....	.....	.....	58.4
Selenium	29	.....	.....	48.3	.....	.....	.....	.....	100.0	.....	.....	.....	100.0
Hydrogen sulphide	26	.....	.....	.....	.....	.....	38.5	.....	.....	.....	.....	.....	38.5
Anthracite coal dust	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amines	6	.....	100.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	100.0
Phosphorus	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Radium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Less than 0.1%.

(N. O. S.) Not otherwise specified.

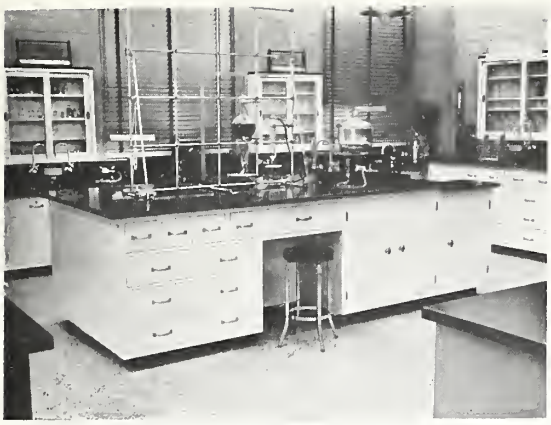


Figure 2. General view of laboratory.

for preventing occupational diseases, and, in cooperation with the medical profession, industry, and labor to promote occupational health through education.

Physicians in industry often ask of what value or service could this Bureau be to them. Services to industrial physicians can be conveniently classified into the three main groupings of the Bureau, namely, medical, engineering, and chemical. From the medical standpoint, this Bureau offers consultation services as to diagnosis and prevention of occupational diseases; consultation as to administration of an adequate industrial medical service; consultation as to medical record keeping, especially absenteeism due to illness. Further, requests may be made for industrial epidemiological studies of specific cases, studies of pathological material involving industrial diseases, and mass studies of potential exposures.

The engineer may, at the physician's request, render the following services to the plant:

1. Detailed job analyses for the patient under consideration.

2. Recommend methods for controlling the exposures through engineering means.

3. Make measurements of environmental entities such as light, heat, air velocities, humidity, amount of contamination of air due to dusts, gasses, mists and fumes.

4. Sanitation and housekeeping.

Our laboratory is equipped to render the following services if the physician requests them:

1. Dust studies, including counts, particle size determinations, and per cent of free silica.

2. Gas analyses, qualitative and quantitative,—especially carbon monoxide, hydrogen cyanide, hydrogen sulphide, methane, and illuminating gas.

3. Quantitative atmospheric determination of volatile solvents that may be used in industry as the halogenated hydrocarbons, petroleum derivatives, and coal tar distillates.

4. Quantitative atmospheric analyses of heavy metals as: lead, arsenic, cadmium, selenium, zinc, etc.

5. Routine clinical laboratory studies associated with occupational diseases such as: urine sulphate ratios in benzol poisoning, urinary leads, asbestos bodies in sputum, special blood studies, as well as special studies on post-mortem material.

6. In general, facilities are available in this laboratory or the laboratory of Industrial Hygiene of the U. S. Public Health Service to do any type of industrial analyses necessary to establish a diagnosis of an occupational disease or to determine the existence of a potentially hazardous atmosphere.

The findings by the Bureau are confidential and are given to the persons concerned only. The data obtained may not be used for medico-legal evidence since our chief aim is to be a *neutral* fact finding agency, letting the facts speak for themselves. There is no charge for any of the services rendered by this Bureau. It was established to offer a type of service not previously available to all communities. Through the full use of this agency and the willingness of others to cooperate, occupational diseases can, in a large measure, be prevented.

Cooperation of all interested in this problem is imperative if control of occupational diseases is attained. No one agency or group can successfully do the job alone, and it is in this light that we think it desirable for physicians to report their cases of occupational diseases to the State Board of Health. These reports are confidential and are used in studying the incidence of industrial diseases as well as spotting the industries that need "immediate attention."

Through a wide application of a preventive industrial medical program, lost time due to illness will be cut, accidents will be fewer, production schedules will be kept up, compensation costs will be reduced to a minimum, labor turnover will be decreased, and above all the life span of the worker will be prolonged. More and better products can be made by healthy workmen through industrial hygiene. This fact, in our present National Defense preparations, *must* not be overlooked.

1098 West Michigan Street

MEDICAL RELATIONSHIPS IN INDUSTRY

C. M. PETERSON, M.D.*
CHICAGO, ILL.

It can be safely acknowledged by all parties concerned that industry needs medicine and that medicine needs industry as well. Modern industrial medical practice has developed so many ramifications and occupies such a prominent place in all kinds of general and special medical activity that it can be truthfully stated that there is scarcely a field of present day practice which has not been affected by problems of industrial health or which has not contributed toward their solution. In any discussion of medical relationships in industry, therefore, it becomes at once necessary to express on the one hand the collective interest which the medical profession is now exerting through its various forms of organization, and also to emphasize the relationship of the individual practitioner to the many and constantly expanding opportunities in the field of industrial medical service.

THE INTEREST OF ORGANIZED MEDICINE

For example, it is desirable on every count that the medical profession understand the essential elements in industrial health as necessary groundwork for the adjustment of its requirements into the accepted forms of community medical relationships. A brief and by no means complete picture is as follows:

> There are approximately fifty million gainfully employed workers in the United States, ten years of age or over, who engage in some nine hundred occupations potentially hazardous to health. A great many, but by no means all, of these hazards are concentrated in manufacturing plants and in those enterprises devoted to the production and transportation of raw materials for the fabrication of manufactured goods. Conditions of employment have demonstrable effects on the productive and life spans of workers which, as has been shown, are most noticeable in unskilled occupational or socio-economic classifications. A great many, but not all, of the uncontrolled industrial health exposures exist in small plants which comprise a considerable majority of the industrial establishments in this country. Most of these small business enterprises are, or consider themselves to be, unable individually to support medical services beyond first aid and on call treatment of emergency and compensable disability. In large plants industrial medical services are of demonstrated value in the reduction of compensation costs, the lowering of absenteeism, the lessening of labor turnover, and elevating the physical welfare of employees. On the average, each male employee can expect to lose approximately nine days of work annually, one day of which is due to accident, and a fraction of a day to occupational disease. The balance of lost time arises from illness not directly assignable to industry. The total cost annually is staggering and must be computed in the billions of dollars. Industrial health problems affecting as they do the regularity and continuity of working periods, together with the countless subnormal and pathological conditions uncovered through physical examination programs in industry, provide the medical profession with an extensive opportunity to assist in the improvement of the physical welfare of employed groups.

In the face of this evidence it appears certain that the demands on the profession from industry will increase enormously. If such opportunity is to be created, the organized medical profession must manifest constructive interest in these problems. Certainly leadership in this movement should not be relinquished to any other agency. An important expression of aroused interest has been the formation of the Council on Industrial Health in the American Medical Association as a means of focusing attention from all elements in the medical profession on industrial health problems.

MEDICAL ORGANIZATIONS IN THE STATES AND COUNTIES

Almost at once the Council on Industrial Health realized that no effective program of improving the standards of industrial practice could occur without helpful cooperation from the constituent and component medical societies. A policy was therefore adopted in the following terms:

> Contact should be made with the several state medical societies, urging them to create committees on industrial health which will proceed at once to study the problems in this field in their respective communities. The organization of committees should be extended as far as practicable to the county medical societies. These committees should be urged to investigate the present activities within their states of the several agencies interested in industrial health, as well as the proposals for industrial legislation which are being presented to various legislatures. Educational programs should also be sponsored under the auspices of these committees.

This method of taking advantage of the structure of organized medicine has already yielded interesting results. Earlier investigation had demonstrated that while a fair percentage of state medical societies had formed committees to deal with limited aspects of industrial health, centralized responsibility was largely absent, and func-

* Secretary, Council on Industrial Health, American Medical Association.

tions were distributed through several committees, all of which might act independently on economic, ethical, or clinical matters. The need for coordination of activity was evident to the majority of state medical societies, and committees on industrial health were created. These committees are expected to develop cooperating committees in the industrial counties, all in the hope that the objectives of industrial health will be more rapidly realized.

The programs of all these correlating committees in the county, state and national organizations, is identical. Activities have been widespread but for our present purpose can be classed under three major headings of investigation, correlation, and education.

NEED FOR INVESTIGATION

By investigation is not meant the development or maintenance of scientific research, although it is not beyond possibility that means for fostering original studies can on occasion be underwritten. Our present requirements refer more closely to inquiry into details of industrial medical department administration and about the relationships between the physician in industry, the employer, the employee, his fellow practitioners and various agencies in the government and in the field of insurance. Physicians specializing in or giving major attention to industrial practice must be known since it is upon this group that we must mainly depend for teachers and clinical investigators. Certainly, little progress can be made until there is a reasonably exact description of available industrial medical resources as a means for suggesting further expansion or improvement. In still other directions, it is necessary to determine the essential health problems of specific industrial operations and to establish proper etiologic relationships between occupation and health.

CORRELATION

In much the same way it is necessary to acquire and correlate information about the multitude of lay and professional organizations which have or ought to develop a constructive interest in industrial health. Much of this important field of professional and public relations has remained uncultivated, awaiting proper medical leadership to awaken and sustain interest. There are, of course, many organizations which have made great contributions to industrial health—in these cases correlation is the means for conveying to the medical profession information about these advances, and for avoiding duplication of effort wherever possible.

EDUCATION

Important as these activities are, most of the problems of industrial practice must be solved through recourse to medical self discipline and improved medical education. The general function of committees on industrial health must always be to bring to the physician a sense of the contribution which he can make to the physicial betterment of workers and to guide him in the application of scientific and ethical medicine to industry. There are hundreds of opportunities for such professional training in meetings, seminars, publications, and through the establishment of clearing houses for information as well as organized courses arranged by our professional schools and postgraduate education committees.

INDIVIDUAL OPPORTUNITIES

It is important that the state and county medical society agencies realize that, with minor exceptions, industrial medical activity flows through three main channels. At one end of the scale is the medically trained industrial hygienist whose interest is solely in the prevention of industrial disability. His is basically an investigative and consulting function. As such he may be associated with a bureau of industrial hygiene in a state health or labor department, or acting in a somewhat similar capacity to a trade association or insurance organization, or he may be acting independently. In any case, his work affects groups rather than individuals and his primary interest in prevention tends to make him regard industry as an important avenue through which certain problems of adult hygiene can be approached with greatest convenience. Interesting examples at the present time are the programs of syphilis and tuberculosis control working through industrial or union organizations. Next there is the physician in industry who is engaged in plant medical department administration, either on a full or part-time basis, and in which is included the treatment of accidents and diseases of occupational origin. It is contended that as these industrial practitioners limit themselves more and more to preventive medical and health conservation, so do they effectively remove themselves from any competitive relationship with private practice. Indeed, it has been demonstrated that such activity, like that occurring in other types of public health service, can and does greatly extend the opportunities for constructive work by the family physician.

Finally, there is the private practitioner, specialist or otherwise, who has most commonly been called upon by employers or insurance companies to treat individual cases of industrial injury or disease. A most interesting observation is that in spite of the fact that private practitioners have not been particularly interested or aggressive in developing the field, the great share of medical service to industry remains in their hands and as such consists almost entirely of remedial or corrective work. Spolyar[1] has demonstrated that in Indiana but 10 per cent of the industrially employed population work under the supervision of a full-

[1] Spolyar, Louis W.; Wiley, John S., and Richter, Wilma E.: Preliminary Industrial Hygiene Survey of Indiana Industries, Indiana State Board of Health, Indianapolis, Indiana. 1939.

time plant physician. Part-time medical attention is supplied to 18.5 per cent, and something over one-third have nursing service. In plants of one hundred or less employees, only 0.2 per cent of the industrially employed work under full-time medical supervision, 0.4 per cent under part-time medical supervision, and less than 1 per cent under nursing control. At the same time it must be remembered that if the same proportions hold true in Indiana as in the country at large, over 90 per cent of all plants employ fewer than one hundred workers. Here, then, is the crux of the problem—to supply medical service of a preventive and health conservation type to the smaller industrial plant. The need is all the more important because it is unrecognized by the average employer. Accidents and disease are in no sense a function of plant size and they will occur wherever the exposures are uncontrolled. The Council on Industrial Health therefore[2] believes that these needs represent a considerable opportunity for medical achievement and that this demand should be encouraged and controlled through the establishment of an educational service which will:

1. Acquaint physicians with the special character of industrial medicine, surgery, and hygiene, and the necessity for the enforcement of standards defining scope and professional competence.

2. Convince employer and employee alike that medical service in industry merits support only as it is soundly organized economically, scientifically and ethically, and that to produce lasting benefits it must be satisfactory both to those who provide and to those who receive the service.

The medical profession in Indiana has entrusted the details of this program to its own Committee on Industrial Health to foster and administer in keeping with local circumstances and requirements. It takes little foresight to predict that as the full implications unfold no committee will be called upon to provide a higher type of leadership or will contribute more to the improvement of existing medical standards or to the advancement of sound professional relationships.

[2] Medical Service in Industry—Introduction: J.A.M.A. 115:1099-1100 (September 28), 1940.

MEDICAL PRACTICE IN INDUSTRY

E. S. JONES, M.D.
HAMMOND

Since industrial medicine has become a major activity of the medical practitioner in many communities, medical practice in industry has become increasingly important to the profession in general. In this hour of national defense the physician in industry plays a far more valuable role in keeping the wheels of industry humming than does the doctor in military service, for from these plants come the necessary implements for successful defense.

The large industry has solved its medical problems satisfactorily. However, the smaller industries, and especially a one industry town in a rural community, have been cause for no little concern to the medical profession and the insurance carriers.

Compensation laws, unemployment insurance, and the social security act have forced the larger companies to choose their employees with more selective care than heretofore. They observe careful and all-inclusive pre-employment physical examinations, as well as periodic check-ups. This plan has resulted in large savings—monetary and otherwise—to the companies. In plants where there are occupational disease hazards, frequent blood and other laboratory examinations are routinely done. This eliminates loss of time for the employees as well as possible permanent damage.

On the other hand, medical examinations for prospective employees for the smaller industries is one of the chief concerns with which the various county committees on industrial health are faced. They are finding the problem difficult to solve.

It is possible that a workable plan may be achieved only after a campaign of health education has been made in these smaller industries. If it can be proved to those responsible for the health of their employees in these smaller industries that pre-employment medical examinations will cut down the insurance rate, lower the time-loss schedule, and otherwise show that such a service as this would be of economical benefit to the employer as well as to the employed, then it would not be so difficult to raise the standards of health in all industries, large and small alike.

In the general plan for better health in industry, it should not be overlooked that food industries should be fully aware of the dangers of food contamination from employees who are carriers of lues, typhoid fever, and other contagious and transmissible diseases. Thorough check-up of all employees should be given for findings of this nature.

It is impractical and false economy, however, to have a physician spend more time than is absolutely necessary on duty at the plant. A time-saving plan may be economically worked out for plants employing five hundred or over by maintaining a clinic with an industrial nurse in attendance and a physician on duty for an hour or two daily, de-

pending upon the special needs of the industry and the average number of casualties. If such a clinic cared for an average of ten employees each day, it would be considered to be operating on an economically sound basis.

It should be the duty of the nurse to attend all minor scratches and contusions. She should have control of the dispensing and up-keep of all medical supplies and equipment pertaining to the proper maintenance of health standards. She might also serve as advisor with regard to the employees' worries. An industrial nurse should be fully trained in first-aid, but it is never the province of the nurse to practice medicine, to make diagnoses, give prognoses, or to assume the responsibilities of major health problems. These are distinctly the duty of the plant physician. The nurse should immediately consult with the physician on all questions of policy, and refer to him all cases where there is the possibility of time-loss due to injury or disease.

The relation of the industrial physician to the family physician and *vice versa* is aptly put by Dr. L. H. Childs, of Genesee County, Michigan, when he says: "The industrial physicians are case-finding agencies not assuming the therapeutic duties of the private practitioner in any sense of the word. It is the intent of the industrial physician to determine the existence of physical defects or communicable disease in order to protect the individual worker and his family as well as those who work beside him in the plant. Strict adherence to the policy of allowing the worker to select and be treated by his family doctor for non-industrial injury or disease is to be adhered to."

It is the duty of the private physician to coperate with the industrial physician by notifying him when a worker is ready to return to work, and to give for statistical purposes a diagnosis of the cause of absence. No employee should be allowed to return to work while he might still be in condition so as to jeopardize the health of himself or his fellow workers.

For the proper functioning of any industrial health plan it is essential that the family physician and the industrial physician work in close co-operation. About seventy-five to eighty percent of lost-time disabilities are due to non-industrial incapacities such as the common cold, accidents away from the plant, digestive disturbances, *et cetera*. There can be no definite line of demarcation between the industrial and the non-industrial physician's work.

Preparation for this work is still inadequate in our medical schools. A few lectures on the subject of medical practice in industry are given, the average clock hours of a course being about five, with possibly one field trip included. Although definite training in the field may not be necessary, it is evident that the need for an understanding of the work is great. The industrial physician must be adept in applying preventive measures. The workers must be taught by them that early medical care should be sought from their family physician. Getting the workers back to work at the earliest possible time with safety rests on the shoulders of the industrial physician, for he must think of employer as well as employee.

The following suggestions with regard to what our medical schools, our state and county societies can do to help further more adequate preventive measures in the smaller as well as in the larger industries are:

(a) A concentrated postgraduate course to be given by the medical schools, with at least one instructor invited to lecture coming from the industrial personnel, one who has a practical knowledge of the work in the field of industrial medicine; one lecturer, a statistician, qualified to discuss percentages of disabilities; one lecturer from the industrial board, whose duty it would be to acquaint the doctors with a knowledge of industrial procedures.

(b) There should be a definite time alloted to speakers qualified to explain this branch of medical work at our annual State Medical Association meetings.

(c) At least one meeting a year should be devoted to this subject by the county medical societies in all industrial communities.

It has also been suggested that an educational meeting be held to which the public would be invited, including particularly plant managers and labor representatives. If this meeting were planned for an afternoon and an evening, exhibits could be arranged to show the type of work done at the clinics, the function of the industrial nurses, some x-ray and laboratory exhibits and the like. Since the industrial nurses have an organization through which they combine to further knowledge of this field of nursing, they could reasonably be expected to contribute much of interest to the public. The purpose of such an educational meeting as this would be to acquaint the public with the work being done in industry for the betterment and protection of industrial workers, and to show how accidents have been reduced by safety measures. Appropriate entertainment in the form of a play or pantomime could be staged. The scope of immeasurable interest that could be elicited by such a public relations program as this would certainly justify a trial, it would seem.

SUMMARY

1. Smaller industries should have better and more adequately supervised medical care.

2. Means of postgraduate courses for the profession should be arranged.

3. Harmony and close cooperation should be maintained between the industrial physician and the family physician.

4. A more uniform plan of determining the percentage of disabilities should be made.

OCCUPATIONAL DERMATITIS

FRANK M. GASTINEAU, M.D.
INDIANAPOLIS

The last ten-year period has been one of increasing protection for the worker in industry. One phase of this has been the broadening of the coverage of the compensation act to include occupational diseases.

Statistics show that industrial dermatitis approximates sixty-five per cent of occupational disease cases. Indiana is rapidly advancing in its status as an industrial state. The present boom in defense industry has developed a great influx of new and inexperienced workers into the cities and factories and has projected occupational dermatitis into greater prominence.

The subject of occupational dermatitis has been studied by Schwartz of the United States Public Health Service, J. Downing of Boston, Sulzberger of New York, Osborne of Buffalo, and many others, and much of the knowledge concerning the subject is now standardized. However, the problems that the physician must solve are really the problems of a cross-section of local industry, and the type of case involved will vary greatly in different localities.

Occupational dermatitis includes any inflammation of the skin due to a primary irritant and to sensitizers. By primary irritant is meant substances such as acids and alkalis and other powerful chemicals which are capable of producing a dermatitis on first contact on any skin. The reaction is sudden, and inflammation is produced. It is really a local chemical burn. In sensitization dermatitis there is no reaction in the skin upon first exposure, but a period of calm intervenes which is followed by defensive reactions in the skin against the sensitizer. The reaction is usually gradual and occurs at sites of exposure, though occasionally a generalized dermatitis develops.

In solving problems of occupational dermatitis, a careful and detailed history will save much time and may avoid unnecessary patch tests. Frequently it is necessary to consult the factory manager or chemist to determine details in regard to the substance under suspicion. Often the worker knows the product only by a trade name or nickname which is of little help.

Most of the workers seen with industrial dermatitis are young, they are new in industry, and they are prone to take chances and to disregard the warnings of the more experienced workers. The older age group have adapted themselves to the work that they tolerate best, and they have learned how to protect themselves. More cases are seen in the summer than in the winter; this probably may be attributed to looser clothing and more perspiration.

Women seem to be affected more than men. Personal habits and mannerisms play a big part in the production of a dermatitis. In contrast to atopic eczema, there is no familial history of allergies in occupational dermatitis. The sensitivity apparently develops as a personal problem and may develop at any age.

The eruption usually appears on the exposed parts such as hands, forearms, arms, face and neck, though other areas remote from original contact may be involved. The outline of the eruption is usually well marked; only occasionally are generalized eruptions seen. The type of eruption may be mildly inflammatory, vesicular, or pustular; in older cases, the skin may be thickened and pigmented. The picture is often complicated by previous applications of medication, usually too strong for the already inflamed skin.

The solution for this complicated problem is the patch test. This is simply an attempt to reproduce the dermatitis under controlled conditions and observe its effect in twenty-four to forty-eight hours. The site of patch test selected is usually the chest or inner aspect of the arm. The test should not be made close to the dermatitis. It is usually advisable not to test over a previously inflamed area for fear of re-exciting the dermatitis. Of course, the face and neck should be avoided as sites for patch testing. It is usually good practice to wait until the dermatitis has subsided before performing patch tests. The physician should know about the substances to be tested and should not apply a primary irritant. Lists of primary irritants have been compiled and dilutions explained in standard text books on the subject. It is better to use a suspected substance in great dilution rather than to risk a chemical burn. The author had some bitter experiences years ago in making patch tests with unknown chemicals before such information was available.

The patch test is made by applying some of the suspected chemical in proper dilution on the skin, and covering the area with some insulating material such as a piece of white blotting paper, or a piece of muslin, or a thin sheet of mica, and then strapping with adhesive tape. An area about the size of a quarter or half-dollar is used. The reaction is observed in twenty-four to forty-eight hours. Inquiry should be made as to susceptibility to adhesive tape before applying the tape. Scotch tape may be used or the patch may be sealed with collodion if the individual is susceptible to adhesive tape. The patient should be warned to remove the patch immediately, and not wait until twenty-four hours have passed, if any unusual reaction occurs. The patch test should produce a dermatitis at the site if positive. Too many patch tests should not be performed at once. Patch tests are of less value in chronically thickened

skins than in acute cases. Patch tests can not entirely reproduce actual conditions that exist as far as the patient is concerned. The maceration of the skin, the excessive heat and the sweat present in some occupations defy reproduction; hence, there is some inaccuracy in the patch test and a negative patch test does not mean that the eruption is not of industrial origin.

Fungous infections are so widespread in Indiana that they play a great part in complicating a case. Most of the fungous infections occur in the young people and they are particularly prevalent in those whose work require their hands to be in water. Make it a practice carefully to examine the feet of every one who complains of sore hands. It is my opinion that this is the primary source of most of the fungous infections. It is also important to make detailed inquiry as to the type of medication recently used on the feet. Strong topical applications on the feet frequently precipitate epidermophytids on the hands. The diagnosis of fungous infection can be established by planting scrapings of the skin on Sabouraud's media and allowing it to grow at room temperature.

The last one hundred cases referred to my office by factories and insurance companies for diagnosis included the following:

Primary Irritants	6
Fungous Infections	7
Bacterial Infections	8
Other skin diseases:	
Cosmetic Dermatitis	2
Psoriasis	4
Pityriasis Rosea	1
Erythema Multiforme	4
Lichen Planus	1
Atopic Eczema	1
Varicose Eczema	2
Bromide Eruption	1
Palmar Syphilis	1
No skin disease (apprehensive)	1
Malingering	1
Sensitization Dermatitis: 60	
Chromic Acid	8
Soaps	4
Rubber	6
Dusts	4
Oils	6
Solvents	6
Wax	2
Vegetables	2
Lacquer	2
Wood	1
Formaldehyde	4
Leather	1
Cinnamon	2
Dyes	2
Preservatives	1
Ammonia	1
Chocolate	1
Brazilian Nuts	3
Mercury	1
Picric Acid	1
Undetermined	2

Five of the primary irritant cases were chemists who were experimenting with unknowns and developed a contact dermatitis on the hands which was slow in healing. In each case the enthusiasm for their work delayed the healing process because they remained in contact with the offender. The sixth case was a factory worker who splashed sulphuric acid on his arms and did not report it immediately; a dermatitis developed from his own local therapy.

The fungous infections were all in young people. In each case there had been repeated attacks on the feet. Four worked in soda fountains and washed dishes. Two worked in foundries and were exposed to intense heat. The latter two complained bitterly of the conditions of the shower baths and wash rooms as the source of infection. I believe that the clean-up of shower baths and wash rooms will go far in eradicating fungous infections in factories.

The most interesting case of this group was a young woman factory worker who appeared with a circinate eruption on the forearms and several areas of eruption on the neck and side of the face. Clinically the condition was tinea circinata, proved by mycological studies. Further investigation revealed that she had received a kitten for a pet just before the onset of the eruption.

The bacterial infections were two cases of impetigo of widespread type, acquired independently of employment. Two developed boils from exposure to oil. These men had very hairy skins and they were careless about their personal hygiene. One man developed a widespread sycosis barbae from tar. One had a streptococcic infection of the hand.

Other skin conditions that patients thought were occupational presented a cross-section of usual dermatological practice. Most of the patients were sincere in believing that they acquired the skin eruption from their occupation. One of the embarrassing phases of dermatology is that the etiology of many skin diseases is unknown. One of the psoriasis cases was quite a sea-lawyer type who tried to force the company to pay compensation upon the unknown etiology idea. The palmar syphilis case was a young married woman who worked on copper wire in a factory. A typical palmar syphilide was present. Diagnosis was substantiated by blood tests.

The malingerer presented an interesting problem. A widow woman, age 55, worked temporarily in a canning factory, and received a slight burn on the forearm, which would not heal. When the season ended and the factory closed, she went to live in a neighboring town with a daughter. She moved around from town to town, living with various relatives, her arm still sore, and she continued to draw compensation. She changed doctors frequently. Upon examination, streaked eruptions were seen at and near the site of the old burn. The color and character indicated that sulphuric acid was being used. A bandage was applied and marked with mercurochrome, and was changed by myself daily. When the patient learned that her

dermatitis was no secret, she promptly stopped her practice of burning her arm. This was the first independent income she had received for years, and it was hard for her to go back to living on her daughter.

The cosmetic cases were young women factory workers who presented dermatitis of similar type. Eruption began on the side of the neck, and the eyelids became irritated. Remaining off work did not help the condition. The eruption reappeared with violence. Patch tests with cosmetics were then done, and a strong reaction was obtained to a popular brand of nail polish. Other cosmetics were negative. In each case the skin of the hands was normal and the dermatitis developed from rubbing the lacquered nails on the eyelids and sides of the neck. During the examination, it was noted that this was a frequent mannerism.

The true sensitization cases presented a variety of dermatological pictures depending upon the offender involved. A few cases stand out and are worth describing in detail:

A young woman office employee in a large drug company complained of a vesicular eruption on both hands for a duration of six months. She had been employed two years in the same position. She had received a variety of local medication and some radiation without benefit. Scraping culture for fungi was negative. She was asked to keep a diary of her actions and possible contacts. Her observation was that when she handled the order blanks from the mercury department, her hands were worse. Patch tests showed her skin to be very sensitive to mercury and particularly to the new mercurial compounds. A change in her type of office work resulted in a cure.

Another interesting case was that of a factory employee who received a minor burn on his leg. This was treated by picric acid. A widespread generalized dermatitis developed which persisted for six weeks because of a sensitivity to picric acid.

A baker, age 60, who had been employed in the same bakery for thirty years, developed a widespread dermatitis that began on the dorsal aspect of his hands and spread to the arms, face and neck. He was off work for weeks. Upon return to the bakery for a few hours, itching began and the eruption returned with increasing violence. After weeks in the hospital, the dermatitis subsided enough to permit skin tests. A very positive reaction was obtained to cinnamon and a moderate reaction to chocolate. Further physical examination revealed a number of abscessed teeth and pus in the urine. It has been my experience that the older worker often develops an occupational dermatitis when greatly fatigued or when overwhelmed with focal infection. He was advised to have abscessed teeth removed and every effort was made to build up his vitality before he returned to work.

Three girls working in a candy factory developed an identical eruption on the dorsal aspects of hands, forearms, and mid-third of arms. It was marked by intense itching. Patch tests revealed a positive reaction to Brazil nuts. Everything else was negative.

A man, age 40, had worked in a large auto accessory factory for ten years except for seasonal lay-offs. A dermatitis developed on the exposed parts and spread rapidly over his body. Because of the nature of his work, lacquer was suspected as the cause. When his dermatitis had subsided, patch tests confirmed the suspicion. His sensitivity was such that he could not return to the factory but was forced to seek other type of employment.

Several cases of severe dermatitis developed in a small factory. All the girls involved were new employees and the following letter from the employer tells the story very graphically:

"The solutions with which these girls may come in contact are standard chromium plating, nickel plating and copper plating solutions. The chrome plating bath is composed of CrO_3 in the concentration of 40 to 45 ounces per gallon.

"The nickel solution contains nickel sulphate, nickel chloride, boric acid and a trace of H_2SO_4. The pH of this solution is maintained at from 2.5 to 3.0.

"Copper plating solution is composed of soda ash and caustic soda, two to three ounces per gallon. Sodium cyanide and copper cyanide 2 oz. per gal., sodium Tartrate 8 oz. per gal., with a trace of sodium thiosulphate.

"In addition the process of plating includes cleaning solutions of reasonable concentrations of soaps and caustic soda as well as dilute hydrochloric acid dips.

"It is obvious that unless unusual care is exercised by operators, they are going to have skin trouble from any or all of these solutions. We furnish rubber boots, aprons and gloves, but even this, of course, is of no avail unless the operator takes exceptional care to keep the solutions off the skin or to remove them immediately if they are accidently splashed."

Detailed study revealed chromic acid to be the offender in these cases. One was able to develop enough immunity to continue in her employment. The others had to transfer to other employment. One of the most difficult things to understand is why some workers develop an apparent immunity and harden themselves to the excitant while others become more explosive even with fractional exposures.

A young woman, age 26, working in a rubber factory, developed a vesicular dermatitis on both hands and forearms. Patch tests revealed a positive reaction to a red rubber being produced at that time. She was sent home and, when seen with her doctor again in six weeks, there was no improvement. The diagnosis was doubted. Further questioning of the young lady revealed that

she wore red rubber gloves while doing her house work because of the condition of her hands. Patch tests showed a positive reaction to these gloves. There was an uneventful recovery when she stopped wearing the gloves.

Occupational dermatitis as a disease is overtreated. It is surprising the number that are treated as ringworm. The medical profession of Indiana is oversold on athletes' foot and should remember that vesicles on the hands are not necessarily ringworm. Palliative treatment is usually indicated and a search should be instituted for the causative factor. In the search, if contacts at work are negative, further investigations should be pursued in outside occupations and hobbies. In women, cosmetics, perfumes and hair dyes should be considered. The employer and insurance companies are getting a better understanding of the problem. Early diagnosis may save weeks of disability.

EXPLAINS HOW FAMILY PHYSICIAN CAN ASSIST U. S. ARMY AIR CORPS

Flight Surgeon Tells How Unfit Applicant Cadets May Be Kept From Or Prepared To Pass Physical Examination

The family physician can in large measure assist in the U. S. Army Air Corps preparedness program by a proper approach and attention to the physical problems of applicant flying cadets before the young men have gone to the time and expense of appearing before army flight surgeons for examination, M. Martyn Kafka, M.D., Flight Surgeon U. S. Army, Scott Field, Ill., advises in the Medical Preparedness Section of *The Journal of the American Medical Association* for March 8.

"Many of the applicants travel hundreds of miles to army flight surgeons for the required special physical examination," Dr. Kafka says. "Important problems arise in the course of a pilot's career. High altitude flying, sudden changes in altitude and temperature all require perfectly healthy young men.

"The family physician must realize that when pilots and their crews are flying in extremely high altitudes their safety depends on the maintenance of normal respiratory, cardiovascular and mental processes. Therefore, any physical defect which the applicant has may be the cause of his rejection by the flying cadet board.

"The family physician can aid the flight surgeon and the flying cadet board by properly preparing the applicant prior to his contemplated trip to take the special physical examination. The family practitioner may overlook the minor defects of a seemingly healthy youth who asks to be examined. Naturally the apparently healthy candidate feels that he is qualified for any type of physical examination, and should he fail he may become discouraged; besides, it has cost him time and money to travel to the examining board, and when a flying cadet candidate is disqualified because of some minor defect the progress of the preparedness program is hampered to some extent.

"The family doctor, then, should bear in mind some of the deficiencies which are common disqualifying factors. A general survey is here offered which attempts to outline some of the physical requirements essential to the acceptance of a flying cadet candidate. These applicant cadets are only too often rejected because of minor conditions which originally could have been corrected before they left home."

The minimum vision is 20/20 for a class A pilot. Such eye conditions as astigmatism, failure of pupils to react to light and unaccommodation or unequal pupils, finding of total color-blindness to the yarn test for a single color, such as red, green or blue or the presence of night blindness will be sufficient cause to reject the candidate.

Obstruction of the nose or the presence of any marked deformity which blocks nasal breathing should be corrected before the candidate appears for his examination. Such conditions as sinus infections, chronic infection of the tonsils or any infection of the mouth, gums or teeth should be treated and cured.

"No applicant should be allowed to appear before the Flying Cadet Examining Board with a cold, nor should one be permitted to travel a long distance for a physical examination immediately after convalescing from a short or long illness," the doctor says.

"I would suggest that, when doubt exists in the family doctor's mind on problems about the eye, ear, nose and throat, a local specialist be consulted and that, if minor defects are found, correction be encouraged. Missing teeth should be replaced. The applicant's hearing should be at least 20/20 tested by the whispered voice. Any benign tumors of the neck, such as cysts or lipomas, should be surgically removed. Irritations of the neck and infections of the skin should be cured. Acne vulgaris should be improved."

Dr. Kafka says that any deformities of the chest as well as shortening of the limbs are disqualifying.

"Organic lesions of the heart or any pulmonary diseases of either early or late stages are disqualifying," he continues. "A pulse rate of 90 beats per minute may be considered normal if the applicant is excitable.

"Blood pressure should be checked to see if it is within normal.

"Ringworm on any region of the body as well as any other diffuse cutaneous disease should be cured. Applicants with deformities of the feet are rejectable except for various degrees of flatfoot.

"Undernourishment and excessive obesity should be corrected to the ideal type of weight. A fairly good and simple guide for weight calculation is for every applicant who measures 5 feet to allow 104 pounds, for every inch thereafter to add an additional 5 pounds. If for example a candidate aged 22 weighs 170 pounds and is 5 feet 6 inches tall, he would be accepted by the Air Corps if he were of an average of 134 pounds, with a minimum weight of 124 pounds and a maximum of 151 pounds. This is calculated by deducting 10 pounds from average ideal weight or adding from 22 to 30 pounds to the ideal average for the maximum weight. Thus any applicant who is overweight or underweight could be treated for correction. The minimum height is 5 feet 4 inches and the maximum height accepted is 6 feet 4 inches. The maximum weight accepted is 200 pounds.

"Candidates under active treatment for gonorrhea should be discouraged from appearing for an examination. Those who had gonorrhea but who have been cured may be considered favorably. Candidates with congenital or acquired syphilis are rejected.

"Secondary anemias should be corrected. Any history of nephritis or finding of any persistent degree of albumin, dextrose or casts in the urine is disqualifying. Roentgen ray and laboratory tests are utilized by examining board flight surgeons as a routine.

"Since the examination of the flying cadet candidate entails a highly technical procedure, the absence of the deficiencies mentioned would considerably help the examining flight surgeon in the output of acceptable flying cadet material. Aviation medicine today is an attempt to keep pilots well while they are in the air as well as on land."

INDUSTRIAL HEALTH AND SAFETY PRECAUTIONS

MR. J. L. RIDINGER*
EAST CHICAGO, IND.

Previous to 1907, industry as a whole was prone to think that little could be done to improve the plant conditions that were causing so many men to be disabled as the result of accidents. Occupational diseases as we know them today weren't even suspected. Men adjusted themselves to working conditions, or went elsewhere for employment.

In steel mills, the workers looked upon themselves as men of great strength and stamina, and their egos thrived on chance taking and on exposures to health hazards now known to be unnecessary.

In 1907 it became apparent that some industries were beginning to take an interest in accident prevention work. Later, in 1912, a small group of men from the Association of Iron and Electrical Steel Engineers met in Milwaukee to discuss the accident and health problem in industry. Their purpose was to find out why so many men were being injured and disabled, and what could be done about it. The meeting was the forerunner of the National Safety Congress which was formed in 1913.

Further impetus was given the safety movement as the various states enacted workmen's compensation acts. The Workmen's Compensation Act of Indiana went into effect in 1915.

Management's initial effort to combat accidents was a campaign against unsafe working conditions. Machine guards were installed, and many other mechanical changes were made to make plants safer for employes. In larger industries, safety engineers were employed to follow through the safety program. Insurance companies, doctors, state factory inspectors, nurses and employes—all played important roles in the campaign against accidents.

Results were not obtained over night, but as the years passed accidents began to decrease, working conditions were improved, and industry became a healthier and a safer place in which to work.

This paper will outline a safety director's approach to the occupational disease problem of a large steel plant. Space does not permit a discussion of the associated and closely integrated problems of an accident prevention program. Suffice it to say here that, since 1915, when it was in twenty-eighth place among thirty industries with regard to safety, the steel industry has steadily improved its position. The latest available figures (1939) show it to be in fifth place. The industry may be expected to exhibit the same intelligent aggressiveness in applying newly developed knowledge toward the prevention of occupational diseases.

* Safety Director, Inland Steel Company.

INDUSTRIAL HEALTH PROGRAM

The setting up of a health program requires the following ground work:

1. A survey of plant health hazards. This survey should include:
   (a) Process studies of products manufactured.
   (b) Studies of all harmful fumes, dusts and gases (formed or liberated).
2. A careful study of all other working conditions of employes should be made.

We must remember that during the past twenty-five years, many new health hazards have been brought about by the greater use of chemicals. It can be said that those industries which have recognized and studied their health hazards have taken steps for their control.

The following health hazards can be found in the majority of plants manufacturing iron and steel:

GASES

Carbon Monoxide:

Sources:

1. Blast furnaces produce large volumes of carbon monoxide gas. This gas is used as a fuel for pre-heating blast furnace air. When mixed with coke oven gas it makes suitable fuel for open hearth furnaces and reheating furnaces.
2. Open hearths—when molten iron is added to molten steel, a chemical reaction takes place, producing carbon monoxide, which seeps out of the brickwork of the furnaces.
3. Dolomite Cupolas—While burning out gases from dolomite with coke, carbon monoxide is produced and may be dangerous to men charging cupolas.
4. Gasoline engines—Exhaust gases from automobiles, trucks, tractors and portable air compressors.

Precautionary Measures:

1. Carbon monoxide detectors or indicators should be used to check the air before men are permitted to work.
2. Instruct men not to work in gaseous areas without proper protection.
3. Compressed air or fans may be used to supply fresh air.
4. Equip men with airline, oxygen or cannister gas masks.
5. Train men to perform artificial respiration and to use protective equipment properly.

6. Gasoline engines should not be operated inside buildings unless there is an ample supply of uncontaminated air.

Sulphur Dioxide:

Sulphur dioxide is the most common nuisance gas in the steel industry. It is an end product of burned coke oven gas. Overhead electrical cranemen who work in areas around reheating furnaces, have the greatest exposure to this gas. Sulphur dioxide has never, in our experience, produced any serious effects on cranemen. Low concentrations irritate the eyes and throat. Dangerous concentrations make it unbearable for men to work or remain in contaminated areas.

Precautionary Measures:

1. Equip reheating furnaces with stacks to carry fumes outside of buildings.
2. Supply crane cabs with fresh air by means of suction blowers.

VAPORS

Trichloreythlene:

When used as a degreasing agent, has proven to be an economical and efficient process for removing heavy greases from rolls, bearings, motors, etc. In recent years trichloreythlene has gained great favor in industry. The parts to be degreased are usually placed in a tank by some type of overhead crane. The trichloreythlene vapor is heavier than air and, as a result, has no effect on the craneman.

The men who must work near the surface of the tank, while placing machinery in the tank and while assisting in removing degreased machinery from the tank, have the greatest exposure to the substance.

Precautionary Measures:

1. Never permit employes to enter degreasing tank.
2. Install down draft exhaust at edge of tank.
3. Equip operators with airline masks.

Carbon-Tetrachloride:

Its greatest use in the steel industry is to combat electrical fires.

It is also used extensively to clean electric motors.

Precautionary Measures:

1. Provide air movers or fans while working inside.
2. Provide chemical respirators.
3. Use self-contained oxygen rebreathing masks when fighting fires in areas where there is a limited supply of oxygen.

Benzol:

A hydrocarbon derived from the distillation of coal tar. This liquid is common to all steel plants that manufacture coke. Benzol vaporizes very quickly. Its effects are harmful whether taken in large or small doses.

Precautionary Measures:

1. Proper maintenance of pipe lines to avoid leaks.
2. Ventilation.
3. Chemical cartridge respirators.
4. Frequent use of combustible gas detectors or indicators.
5. Physical examinations.

FUMES PRODUCED BY WELDING, BRAISING AND CUTTING

Welding: The process of fusing metals together with heat. Welding has so many applications in construction and maintenance work that it might be well to consider it an economic necessity to industry. Generally welding does not present itself as a health hazard to operators, unless they work in confined areas, without proper ventilation or exhaust systems. Experience has taught us that before welding in terne or galvanizing pots, it is important to remove any coating metal adhering to the pot near the part to be welded.

Lead Welding on electrolytic units is another maintenance problem. This work should be done outdoors whenever possible. If done inside airline masks should be used.

Braising: The process of spraying molten metal onto steel. Usually this practice is followed by maintenance men who repair work machinery. My experience has been confined to the use of bronze on steel. Proper ventilation is necessary when doing this type of work.

Cutting: The process of separating metal with heat. Oxygen-acetylene cutting is done both by machine and by hand. When the cutting is done by machine, the operator is able to get in the clear of the fumes. Generally most of the cutting is done by hand torch. Scrap preparation work presents most of the fume hazards. Car loads of assorted steel scrap are cut to size daily, and although scrap inspectors check the cars for alloys, considerable metal other than steel is recovered by the torch operators. Some of the recovered metals are: lead, zinc, tin, bronze and copper.

Cutting (Steel Scarfing): The process of removing defective "skin" from steel blooms, slabs and billets with heat. Hand scarfing of ordinary steel does not present a health hazard. Machine scarfing produces large volumes of fumes, but this operation readily lends itself to effective exhaust ventilation which protects overhead cranemen from an otherwise serious health and accident problem.

Precautionary Measures:

1. Regular physical examinations for men exposed to toxic fumes.
2. Keep fumes moving by using fans, blowers in open work places or exhaust systems in enclosed work rooms.
3. Provide airline masks or approved respirators.
4. Set up proper sanitary precautions.
5. Provide proper eye protection—lenses to absorb harmful ultra-violet and infra-red rays.

Lead (Other Sources):

Lead has many uses in the steel industry. Some of the more important uses are as follows:

(a) Leaded Steel: a small quantity of lead is added to molten steel, while the metal is being poured from the ladle to the molds.

(b) Terne Plating—coating steel sheets with 80% lead and 20% tin.

(c) White Lead—used by painters and plumbers (no hazard unless sprayed).

(d) Tetraethyl lead gasoline—Used in tractors and trucks.

Precautionary Measures:

1. Air determinations.
2. Effective exhaust systems.
3. Periodic physical examinations.
4. Proper sanitary conditions.
5. Educate workmen to lead hazards.
6. Respirators.
7. Allow milk companies to distribute milk to workmen inside the plant.

DUSTS

Silica—A compound of silicon and oxygen. Used in ceramics, in the form of sand, gravel or crushed stone. In the Steel Industry, the men most likely to be exposed to silica dusts have the following occupations: bricklayers, foundry workers, brick unloaders and gannister workers.

Bricklayers—while working inside of buildings or confined areas.

Foundry Workers—in foundries men have been known to develop silicosis, after a long exposure to silica dust.

Gannister Workers—men who work on operations that have to do with the mechanical crushing of waste brick.

Brick Unloaders—men who are constantly loading and unloading brick.

Precautionary Measures:

1. Dust counts, to determine the degree of air contamination.
2. Periodic x-ray examination of men constantly exposed to silica dusts.
3. Tubercular employes are not permitted to work in silica dust areas.
4. The use of practical dust collecting systems properly maintained.
5. The use of approved respirators.

Asbestos—A mineral used to insulate boilers, steam lines, air lines, open hearth roofs and various types of reheating furnaces. Asbestosis is practically unknown in the steel industry; however, men engaged in reclaiming open hearth insulation should be properly protected. The dust particles become smaller each time the insulation is used.

Precautionary Measures:

1. The use of approved respirators.
2. Enclosed rooms should be used when screening insulation.

HEAT SICKNESS

In recent years, there has been a great reduction in the annual number of heat cases in steel plants. Many contributing factors can be listed: The installation of machinery to do the hard work on hot jobs, such as the dolomite machines in the open hearths, continuous sheet mills, etc.; the eight hour day; the continuation of rest periods; improved eating habits and the liberal use of salt tablets. Some plants have gone so far as to inject salt solution into drinking water lines.

DERMATOSES

Torch Oil Dermatitis: Workmen, such as, bearing men, oilers, greasers and grease house men, have the greatest exposure to this disease. "Torch Oil," a low-grade kerosene, has been found to be the source of most of the complaints.

Precautionary Measures:

1. Provide men sensitive to oils with water soluble protective creams. The use of neoprene gloves has proven effective in some cases.
2. Avoid the use of abrasive soaps.
3. Encourage men to bathe and change their working clothes frequently. Permit dry cleaners or laundries to pick up soiled clothing inside the plant.

ATHLETE'S FOOT

This disease is more prevalent in summer than in winter due to germs being picked up at bathing beaches, swimming pools, and shower rooms. Germicides are used in shower stalls and on locker room floors. Many companies provide rubber tubs with germicide solution for men to use when going to and from showers. Others furnish workmen with wooden clogs. This condition has industrial importance in that its presence increases the susceptibility of workers to dermatitis from numerous materials.

EYE STRAIN

Twenty-four hour working schedules require that proper consideration be given the arrangement of artificial lighting. Foot candle tests should be made to determine whether or not workmen are

provided with the proper amount of light to avoid eye strain.

SUMMARY

This paper does not cover all the health hazards of the steel industry, but an attempt has been made to include those known to be the most important.

The steel industry can be proud of the progress it has made in combating accidents and occupational diseases. New health and accident problems arise almost daily due to mechanical and chemical changes in processing methods. Methods of control must be immediately set up to meet any new challenge if we are to continue to progress in the future.

The Measures of Control are as follows:

1. Dust counts and air samples:
   (a) To determine the need for engineering control.
   (b) Later to determine its adequacy.
2. Engineering, the correction of hazards with proper safeguards, such as, exhaust, vacuum and ventilating systems.
3. Provide airline masks, cannister masks, self-contained oxygen masks and approved respirators, when engineering control is impractical.
4. Educate workmen to the health hazards of their work.
5. Provide proper illumination to avoid eye strain.
6. Physical examinations for all employes—periodic check-ups of those employes exposed to known health hazards.
7. Make a constant effort to enforce safety regulations.

HEALTH AND INCOME

ADOLPH J. FRITZ*
INDIANAPOLIS

One of the most serious disadvantages of the low income which more than half our nation's families must stretch to the utmost to furnish the necessaries of living is that it does not permit reasonable care for the wage earner's health or that of his dependents.

Study after study makes clear how heavy a handicap this is. The National Resources Committee reported that private expenditures for medical care were 22 billion dollars in 1935-36. Another 650 million dollars was spent by government and philanthropic agencies and by industry. The low-income half of the nation's families averaged less than $26 for a year's medical care.

Even if the entire 650 million dollars socially spent had been devoted to care for this lower half, their average expenditure would have been only about $59. Contrasted with this, the average family expenditure for the income classes above $1,500 ranged from $71 to $837. Less than one-third of the nation fell in these classes.

The amount spent for medical care does not alone tell the story. Doctors give some care without payment either by the individual or by a government or private relief agency. The usual practice of charging higher fees to wealthier patients also would raise the expenditures for the top income classes somewhat.

However, there is abundant evidence that wage earners and their families suffer more illness and receive less medical care than is the case for families who can better afford to pay for such services. The National Health Survey of 1935-36 was one of several studies showing that both the amount of illness and the amount uncared for was greater for low-income families.

The disability rate for non-relief families with incomes below $1,000 was 8½ days per year; for those above $3,000, 4 days. Illness other than from industrial causes accounts for about 90% of the absences from work.

A study in one industrial city showed a higher illness rate among persons employed for less than six months than for those employed from one to five years. This points to the probability that illness is a considerable factor affecting labor turnover and the length of the period of employment.

Chronic diseases and defects account for six of the ten days which it is estimated is the average annual period of incapacity from illness per person in this country. Persons whose incomes are low are much more subject to chronic ailments than those who can afford early diagnosis and proper care of sickness in its early stages.

Workers don't want to be sick. They don't neglect their eyes, teeth, and hearing because they are indifferent. When they try to cure the coughs and intermittent fevers, which may be the symptoms of serious diseases, by taking patent medicines instead of getting medical advice, it isn't because they don't know that a period of illness will mean loss of working time and pay they can't well spare. No—they simply can't afford to see a doctor.

The majority of low-income families never ask for charity. They aren't in the free clinics and they don't ask for a doctor's help until they are in a serious condition unless they can pay his fees.

* Secretary-Treasurer, Indiana State Federation of Labor.

Food, shelter, and necessary clothing use up the pay envelope as fast as it comes in. Families which have less than $1,500 a year can't spend much on preventive medicine. They are even less able to meet the staggering expenses of a serious illness without disaster.

After all, the expense of illness does not fall as an average figure on each family. Instead, many families avoid any expense for many years, sometimes because they have no illness, more often because they neglect important preventive care.

Then a long-continued illness or operation may require fees far beyond the family's budget. The strain of meeting these large expenses has often prevented reasonable expenditures for other needs, and has caused worry and strain which in themselves have caused new disability.

It is useless to expect families who never have a surplus dollar to lay aside voluntarily, year by year, funds sufficient to cover emergency medical care. The low-income families need to be helped in some way which will bring reasonable medical care within their budget reach. They don't ask charity. They don't want the doctors to give them services without pay. They do need, and the nation should turn its attention to providing, some method of putting medical care within the financial reach of every wage earner, for himself and his family.

Organized labor believes private medical practice has given good service to the country. We approve the desire to see the continuation of a personal, professional relationship between the doctor and his patient. But it is not enough to demand "free choice of physician" for all sick persons if they can't afford any physician. To the man who never calls a doctor until he is dangerously ill, and who has never had an opportunity to compare the services and fees of different doctors, "free choice" is a meaningless concept. We need positive action to provide reasonable medical attention for all who need it,—not just those who take free care or are paid for in charity clinics, or those who can afford the private fee system at its present rates, but the low-wage groups as well.

Industry has a real stake in the good health of workers. It is estimated that more than 280 million working days—933,000 years of work—are lost each year because of sickness. The loss of production and the wage loss alone run over a billion dollars, without counting the costs of medical attention. Many accidents result from chronic defects, and minor illness can slow up work and increase wastage.

Some companies have responded to their own financial stake in the worker's health by instituting comprehensive programs of industrial health, including pre-employment examinations and periodic re-examinations. Such examinations might serve a useful purpose, benefiting both the workers and the company by making possible measures to prevent the spread of contagious diseases and to assign workers with some physical defect which requires care to jobs which they can fill without risk to themselves or others.

To insure that the industrial health programs may be used only for their proper purpose, and never as the basis of blacklists against workers who may have been active in union work, organized labor insists that the doctors who give the examinations should be employed by and report only to a proper government agency. The public health officers should have access to the results of these examinations but no employer should receive them.

If, in the interests of his fellow-workers' health or safety, it is necessary to bar any man from the employment in which he was engaged, temporarily or permanently, this decision should be made by the government agency, not by the employer, and the worker should receive the necessary medical care or industrial retraining to enable him to take another job.

Industrial health work, properly safeguarded, can meet one part of the medical problem of low-income groups, though it does not provide for family care. If it lacks the safeguards of reasonable privacy for the worker and absence of control by employers, it will seriously harm the workers for whose benefit it should operate. Until proper government authorities are equipped to take charge of such a program of pre-employment examination and periodic re-examination, organized labor must oppose any compulsion on workers to submit to such examinations from company doctors.

These things low-income families and wage earners have a right to ask, and the national efforts should be bent toward meeting the need: adequate medical care within the financial ability of every family to buy, and industrial health examinations by doctors who are serving the public interest only, unswayed by any possible extraneous interests of employers which may react unfavorably on other rights of working men and women.

PROBLEMS OF MEDICO-LEGAL RELATIONSHIPS

AUGUST F. KNOEFEL, M.D.*
TERRE HAUTE

Prior to the enactment of the Workmen's Compensation Act, the right of action of an injured employee was under the Employer's Liability Act. Under that procedure, adjudication was an unduly long process, and recovery of damages, if obtained, was oftentimes a matter of years, with the result that the injured party or (in case of death) the dependents were deprived of financial assistance when its need was greatest. Under the old law, the employer could use the following grounds in his defense: The employee was negligent, that the injury was caused by the negligence of a fellow employee, or that the employee had assumed the risk of injury. To overcome this situation, most of the various states and the Federal Government enacted Workmen's Compensative Laws.

Indiana enacted its first law in 1915, which was amended later in many important particulars, and in 1929 the legislature enacted the law in its entirety, and this has also been amended.

It provides that the law be administered by a board whose members are appointed by the governor. The responsibility of an employer as to ability to meet the provisions of the law are a matter of investigation by the board. It is required that accidents be reported. Regular forms are provided for that purpose, also agreements to be properly executed by the employer and employee in case of accidents, and after submission the board either approves or the reverse. Provision is also made for hearings, whereby either side can file the proper form, setting out there is a difference of opinion. A Board member then hears the evidence, makes an award, and if the latter is unsatisfactory to either party, can appeal for a review of that award by the full board, all members being in attendance. From the latter award, the case can be appealed to the State Appellate Court, and for further action transferred to the Supreme Court. It sets out methods for computing compensation, and amount to be paid for specific losses.

The theory of the Compensation Law is that logically the cost of accidents in industry are a part of the cost of production without reference to fault, and being part of the cost of production, should be borne by the industry itself, and should be added to the cost of production and its operation to provide the greatest good for the greatest number. Under its provisions all workmen, except for exemptions, are paid during their greatest need, i.e., immediately after the receipt of the accident, medical and hospital care be furnished, and if a specific loss be sustained, the amount is set out without further controversy as to what the injured party is to receive. One hundred and fifty dollars ($150) for funeral expenses to be paid by the employer in case of death, and this is in addition to the other compensation paid. There has been much criticism of the administration of the law, also as to the amount of weekly compensation rate paid, and the amounts set out for specific losses, but when one considers how widespread its operations as to the number of employees who can and do recover, and the celerity of its administration when compared with the former practice under the Employer's Liability Law, it is readily seen that the plan of greatest good to the greatest number becomes a fact.

Under the old system, prosecuting a claim was expensive, and delay was the practice, but under the Workmen's Compensation the injured employee can file his own claim, and when his case is being heard the Board member is there, not only to hear the evidence, but also to prosecute the case.

In 1937 the Indiana Legislature enacted the Workmen's Occupational Disease Act. This provides for compensation where disability arises out of and in the course of the employment. This does not compensate for the ordinary diseases of life to which the general public is exposed. The disease must be incidental to the character of the business, and can be fairly traced to the employment as the proximate cause, and which does not come from a hazard to which workmen would have been equally exposed outside of the employment.

The law provides that the Industrial Board can formulate such rules as it deems advisable, and such forms as are necessary to place them in possession of all the necessary information. The role that the doctor plays in workmen's compensation is a very important one.

The rules of the Board provide that following an accident to an employee governed by the operation of the act, a prescribed form must be filed by the employer and another called Form 26 be furnished by the attending physician. The information, which he supplies therein, should be accurate, complete, and in sufficient detail that all parties who read the same can obtain a clear picture of just what occurred to the injured party. To do this requires a careful and comprehensive examination and the keeping of accurate records. Many complaints have been raised as to unnecessary labor and expense entailed in carrying out such a program. This attitude is not altogether justifiable. The day has passed when the only record kept was a ledger. One has but to refer to the rules of the American College of Surgeons, the American Hospital Association, and to all well regulated hospitals to substantiate

* Chairman of the Committee on Civic and Industrial Relations, Indiana State Medical Association.

this statement. They universally provide that a detailed history, findings at the examination, and course of treatment be set down, and for greater accuracy should be done at the time. Medicine is referred to as not being an exact science, but that end can be approached much nearer by recording the details of the case at the time of their occurrence.

Reference is being repeatedly made to "red tape" and in many cases this may be justifiable, but that does not excuse the widespread practice of depending on one's memory or the keeping of insufficient records, for it is inevitable that, due to the human factor, inaccuracies are bound to occur. The record compiled in the case under treatment should be recorded at the time of its occurrence, and set out in detail the injured's statement as to just exactly what happened, the itemization of the injuries as to location, its nature and degree, and what was done in the way of treatment. This is required not by an arbitrary ruling of an insurance carrier, but by the provisions of the law. An accurate record such as described will materially prevent the numerous controversies that too often arise later. The writer having been chairman for several years of your State Committee on Civic and Industrial Relations, I can report that the most frequent cause of controversy arising between an insurance carrier and the doctor has been due to the lack of accurate records and failure to furnish accurate reports. The law specifically states, "The Industrial Board may withhold the approval of the fees of the attending physician in any case until he shall file a report with the Industrial Board on the form prescribed by such board."

There is another situation that often perplexes the doctor and that is the type of hospital and nursing service to which the injured employee is entitled under the Workmen's Compensation Act. This situation is clearly set out in the section that reads—"The pecuniary liability of the employer for medical, surgical, hospital, and nurse service herein required shall be limited to such charges as prevail in the same community for similar service to injured persons of like standard of living when such service is paid for by the injured person." This is so definite and clear that no doubt should ever arise as to what are the rights of the injured employee. The provision of the present law requires that the injured be furnished medical care when needed for ninety days, at the expense of the employer, and any further treatment which be needed must be assumed by the injured party. The additional treatment needed may be paid for by the employer at his own discretion. The Appellate Court has held[1] that when the employer authorizes the attending physician to continue treatment beyond the statutory period, his insurance carrier must assume the financial burden of such service. It must be understood that this situation only prevails when the employer definitely authorizes the treatment. Where no such authorization is given, the ninety-day rule prevails.

The ninety-day provision has been the subject of much adverse criticism, yet when we who have practiced for many years reflect on the manner of care of injured employees in the past, and contrast it with the care of today, the practice of now hospitalizing what used to be considered minor injuries, the great stride made in treatment of fractures, the advancement and widespread use of reconstructive and plastic surgery, one is almost forced to the conclusion that the "greater abundance of life" is already here. It is the writer's conviction that of all the changes in the Indiana Workmen's Compensation Act under discussion, proposed or contemplated, the one most likely to succeed of passage by reason of less antagonism on the part of the opponents is that of necessary unlimited medical care.

Another provision that is often the source of misunderstanding is that which provides for the suspension of compensation when the injured employee refuses the attention of the doctor furnished by the employer. Its validity has recently been sustained by the Appellate Court, and until changed remains the law.[2] In view of this, no doctor should by either direct action or inadvertent suggestion to the injured employee, be a party in depriving him of his compensation.

The Indiana law provides two separate entities that follow receipt of an accident: first, known as disability, and second as permanent impairment. This is not a universal provision in the Compensation Laws in other states. It has been a source of much misunderstanding among doctors. Disability refers to that period following receipt of accident during which the injured is unable to work, and permanent impairment refers to a specific loss of either part of the body or loss of function of any part of the body. There is a more or less definite understanding that when recovery has reached its maximum and condition becomes stationary, the situation is one which should be considered as one of impairment.

To be utterly frank, experience has demonstrated that here it is definitely demonstrated that the whole structure of compensation rests on the medical conflict of loyalty to employer and employee. It is in agreement on cessation of disability and amount of impairment sustained that the major number of controversies arise. Of all cases of accidents reported to the Indiana Industrial Board, only about 12% are submitted to the board for adjudication on account of disagreement of the parties. The law provides that a member of the board hear all the evidence at this hearing. The injured man relates what happened

[1] Union Hospital vs. S. P. Brown & Company, 11 N. E. Reporter, Second Series, page 520.

[2] Pipkin vs. Continental Steel Corporation, 16 N. E. Reporter, Second Series, page 984.

to him, what he experiences at the present time, and what he can and cannot do. Lay witnesses tell what they have observed, and each party to the controversy introduces medical evidence as to what a medical examination discloses and in their respective opinions the amount of impairment that has resulted.

In many cases, the divergence of the medical opinion far outshadows the divergent opinions existing between any two major political parties. There is one aspect that should always be borne in mind when estimating the question of impairment, and that is the amount finally decided upon should refer to permanent impairment and by permanent impairment is meant for all time. Time has proven that Nature is quite a compensator as well as a re-constructor. Every doctor of much experience has been agreeably surprised at the amount of restoration of function in what seemed a total loss. Even though a fractured bone may unite in misalignment, function is eventually restored in spite of the misalignment. In making an estimate of impairment, the two factors most important are the loss of function and its permanency. An unfair practice is to estimate the amount of permanent impairment until sufficient time has elapsed. So often the employer is in a hurry to terminate the case, and the employee is hopeful of getting a substantial sum for the injury that has befallen him, with the result that some one is going to suffer by the settlement. Either the employer is paying too much or the employee is not receiving an amount adequate to his impaired member. The practice of the employee harboring the idea of eventual settlement also unnecessarily prolongs the period of temporary total disability.

In too many cases heard by the Industrial Board member, the divergence of medical testimony is so wide apart that even the wisdom of a Solomon could not arrive at a definite decision, except the criticism that someone is in error. To prevent the odium descending on the medical profession by such a practice, it behooves every examiner to avail himself of all the measures of medical science to arrive at a fair evaluation of the claimant's structure, its function, and the permanence thereof. Difference of opinion is quite natural, but when such difference is diametrically opposite, something is wrong.

If one has not had the experience or all the necessary laboratory physical devices to carry out his examination completely, he should call for assistance so that his patient be best served and the medical profession be still further honored.

A controversial situation occasionally arises between an insurance carrier and the doctor in which the former refuses to pay for the examination and report in a case that proves to be non-compensable. For example, an employee reports an alleged injury to his employer and the latter sends him to a doctor. After obtaining the history of the alleged accident and making the necessary examination, the doctor reports that the condition found is one of disease and is in no way related to any accident, the report and bill is submitted. After due time has elapsed and the services remain unpaid, he again writes the insurance carrier, calling their attention to the unpaid bill and too frequently their reply is to the effect that inasmuch as this was not a compensable case, no obligation to pay is present. This attitude is hard to explain, for it is so evident that their refusal to accept the case as compensable is predicated on the findings demonstrated upon the medical examination. The service has been rendered and the defendant profits thereby.

Happily, this situation occurs only occasionally, but the problem is still with us. One such incident that involved one of the larger companies could, in our opinion, be best described as a puerile abortion. After the doctor had sent in his report and bill in the type of case outlined above, he was notified by the claim department "that it would be impossible to pay the bill for report and examination because there was no file number against which the charge could be made." One wonders if, when an employee filed before the Industrial Board, the defendant would fail to appear at the hearing because no file number was available against which charges incidental to the defense could be charged.

A charge for examination and written report of same is quite proper, but it should be definitely understood that there is no justification for charge for treatment. Too often, due to misunderstandings, or a less conscientious reason, a bill has been rendered for prolonged treatment. To prevent such a situation, doctors should inform themselves either as to the provisions of the law or make proper inquiries of the company involved as to their intention as to assuming cost of medical care in a case of the type under discussion.

From the cases that have been submitted to the Committee of the Indiana State Medical Association by both insurance companies and doctors, we beg to submit the following:

A doctor treated a laborer for simple fracture of femur in a hospital. The type of treatment and after care presented nothing unusual nor was there any undue incident in the progress of the case. At completion of treatment, he rendered a bill for "Treatment, three hundred dollars ($300). Professional responsibility, one hundred dollars ($100). Total, four hundred dollars ($400)." The question asked of the committee by the insurance company was, "Does a separate charge for professional responsibility prevail in Indiana?" A reply was sent to the effect that although the situation might be unique it did not represent the prevailing custom in Indiana. It is the writer's conviction that professional responsibility is part and parcel of our vocation, whether we examine a patient and render an opinion, prescribe a dose of castor oil, or treat a fracture of the femur, and is "all in the day's work."

Apropos of the provision in the Compensation Act that in sum and substance the pecuniary liability shall be limited to such charges as prevail in the community for similar services of the like standard of living when such service is paid for by the injured person, we present the following case which referred to the committee when a difference of opinion arose as to whether the charge was a proper one:

A laborer employed in a minor capacity in a small industry sustained a minor abrasion to his foot, went to a doctor for treatment. The latter made a report of the injury to the insurance company. This employee lived in a shanty boat, and although the injury consisted of a minor abrasion and no complication occurred, the doctor had the man return to the office twice daily for treatment. The question raised was, "Was this course of treatment indicated, and was it in compliance with the law?" What is your answer? The committee sent out a number of questionnaries and universal response was that, "It was quite unusual."

Illustrative of the evil of non-compliance to the provisions of the Compensation Act providing for proper reports is a case in which the insurance carrier raised the question as to the fairness of charge made in an eye case. The attending doctor sent in, and only then after repeated requests, that the injured employee had a "foreign body in eye," and at completion of treatment he presented a bill which, in the opinion of the insurance carrier, was excessive. Following receipt of their letter setting out that the doctor had refused to amplify his report as to condition for which he treated the man, they felt that they had been forced to the conclusion that services rendered the employee did not warrant payment of the amount charged. After investigation by the Committee, it developed that the foreign body was intraocular, and that charge for its removal and after care was quite proper. These facts were transmitted to the insurance carrier and they promptly paid the bill. All of this controversy and bickering could have been prevented had an embracing report been sent in covering the exact type and nature of injury, together with a full description of the treatment rendered.

Another case demonstrates the easy-going, confiding nature of the average physician, that his primary instincts are academic and that the business or financial side of his life is quite secondary. This has to do with a doctor of mature years, many years of practice, competent, well thought of in his community—one of the smaller towns of the state. There appears in his office a man who introduces himself as a claim adjuster of an insurance company. A public liability policyholder of theirs is a defendant, result of an automobile collision. Suit had been brought by the other party, and the trial was to take place in a few days. An agreement had been reached between the parties permitting the defendant to have a doctor of his choice examine the plaintiff. Would the doctor make such examination, submit his report to the insurance company, and appear at the trial which was to be held on a specified date in a county seat adjoining that in which the doctor lived? The doctor readily agreed to do so, made the examination, drove to the adjoining county and spent the entire day there before called to testify. In passing I might say that upon too many occasions the attorney appears to get a Machiavellian delight in having doctors, who are to be witnesses, appear at an early hour in the courtroom, and then not use them until at the day's close.

After the doctor had discharged his duties, he rendered a bill covering the examination, trip to adjoining county and full day's time for fifty dollars. Eventually, he received a check for twenty-five dollars with no explanation. He returned the check for correction and then was informed by the insurance company that twenty-five dollars was the maximum amount that would be paid. The doctor then put the entire matter up to the committee. The latter, following their usual procedure, wrote the insurance company, asking them to furnish their views on the matter in question. No reply was received, and again they were written to, and, although over two years have elapsed, no answer has ever been received. The company involved was one of the smaller companies whose business is confined to this state only. No such discourtesy can be charged to the larger companies. As this committee was not a collecting agency, all that could be done was to advise the doctor to employ an attorney to carry out such measures as were necessary to collect what, in our opinion, was a reasonable charge for services rendered.

When a doctor purchases anything at all, there is in every case at least a conversation as to the price involved, but a doctor will sit in his office, accept employment from a company of whom he has never heard, and nonchalantly omit or not even give a thought to any discussion as to the compensation he is to receive. It is eminently proper for a doctor not only to discuss, but definitely state under what circumstances he will accept the proffered employment, and then and there agreement should be made to the mutual satisfaction of both parties. Such a practice will prevent misunderstandings and each will understand what the services are to cost, and a mutual respect will be fostered.

Certain facts contained in this article are a matter of record and can be verified. The convictions expressed are those of the author, the result of his own observations. The question of their soundness may be a matter of debate, but it is hoped that their presentation may eradicate or at least lessen the too many cases of incidents whereby through the remissness of the doctors, they suffer unnecessary annoyance and financial loss.

THE PHYSIOLOGIC PATHOLOGY OF SHOCK AS APPLIED TO TREATMENT

ALFRED S. GIORDANO, M.D.*
SOUTH BEND

Shock may be defined as a condition of peripheral circulatory failure due to trauma, characterized by decreased blood volume, reduced volume flow, and hemoconcentration. The term is also used in a specific manner to describe such conditions as emotional shock, shell shock, traumatic shock, and surgical shock.

This syndrome clinically is characterized by apathy, ashen cyanosis, clammy skin, rapid pulse, and a fall in blood pressure. When the progress of shock is slow and associated with vomiting or diarrhea, the apathy may develop into a delirium accompanied by muscular twitchings. The urine may be scanty, yet of low concentration as indicated by a specific gravity below 1.012. If this condition persists, acidosis may develop.

The picture of shock, however, must not be confused with the picture of cardiac syncope since the treatment is distinctive and in many instances diametrically opposed. The differentiating signs of pulmonary congestion, dyspnea, and orthopnea are characteristic of cardiac failure and are never present in peripheral circulatory failure. Venous distention is present in cardiac failure, while in shock, venous collapse is present. Enlargement of the liver is present in cardiac failure and absent in shock. Other clinical findings indicative of heart failure are enlargement of the heart, pulsus alternans, disturbance of cardiac rhythm, etc., which are ordinarily not present in the condition of shock.

A large amount of experimental work has been done in an attempt to determine the physiologic mechanism involved in the reduction of blood volume in shock. A few of the outstanding contributions will be reviewed but no attempt will be made to summarize the entire literature on the subject. The theory of traumatic toxemia was expounded by Cannon in the monograph entitled *Traumatic Shock*.[1] In brief, he believes that a histamine-like toxin is elaborated from traumatized tissue which produces dilation and an increase in the permeability of the capillary walls. This permits transudation of plasma from the blood stream with resulting diminution in the total blood volume. Cannon produced shock by traumatizing the extremities of animals, but was unable to account for the decrease in total blood volume by loss of fluid at the site of injury. His theory was the accepted concept of shock until Blalock and Phemister were able to account for the decrease in blood volume by local losses in traumatized extremities. They recognized that the extravasated fluid extended along fascial planes into the groin and retroperitoneal tissues. In their experiments, they weighed the entire lower quarters of the animals and could thus account for the entire fluid loss on the traumatized side. They were unable to demonstrate a circulating toxic agent in the blood stream following trauma by perfusion experiments.

The role of the sympathetic nervous system in shock is important. In 1917, Guthrie had noted that sectioning of the nerves to the leg of a normal animal produced an increase in the blood flow from the extremity 22 per cent; in a shocked animal, an increase of 76 per cent. Erlanger and Gasser[2] noted marked vasoconstriction resulting from intestinal manipulation. They also produced shock in dogs by repeated injections of adrenalin. Rapport also found hyperactivity of adrenal function in experimental shock. Freeman demonstrated that prolonged overactivity of the sympathetic nervous system can, in itself, produce a diminution in the blood volume. Recent work by O'Shaughnessy and Slome tends to indicate a combination of these last two factors as the underlying principle of traumatic shock. They suggest that the diminution in blood volume is due to an additive effect of local fluid loss plus sympathetic overactivity. The latter factor is pictured by Harrison as an intense generalized arteriolar spasm and anoxemia which results in damage to the capillary walls, causing increased permeability and loss of plasma from the circulatory bed.

Many investigators have shown that the plasma proteins become diluted and hematocrit readings show hemoconcentration as the state of shock progresses. Erlanger and Gasser have produced shock by manipulating the intestines and found that fluid was lost through the serous surfaces. This fluid lost had the same albumin globulin ratio as the blood plasma.

The fluid lost in the vesicles of burns corresponds in protein content to the plasma. Trusler and his associates[3] maintain that the cause of death in severe burns is shock produced by injury to the affected vascular bed with loss of an enormous amount of blood plasma; moreover, they believe that infection and toxemia from absorption of broken down proteins in the burned area play very little part. They submit experimental evidence as well as a series of clinical cases which substan-

* From the South Bend Medical Laboratory, South Bend, Indiana. Prepared and presented before the St. Joseph County Medical Society, February 25, 1941.

[1] Cannon, W. B.: Traumatic Shock. D. Appleton Company, 1923.

[2] Erlanger, J., Gasser, H. S.: Studies in Secondary Traumatic Shock: The Circulation in Shock After Abdominal Injuries. American Journal of Physiology, **49**:90, 1919.

[3] Trusler, H. M., Egbert, H. L., Williams, H. S.: Burn Shock Report of an Extensive Burn Treated by Repeated Transfusions of Blood Plasma. Journal of the American Medical Association, **113**:2207, 1939.

tiates their theory. They do not accept Davidson's tannic acid treatment which was based on the toxemia theory. Trusler emphasizes the danger of the use of salt solution in cases of extensive burns instead of whole blood or plasma.

From all evidence presented to date it has been shown conclusively that the main initiating factor of shock is not due to toxemia but to injury to capillary endothelium giving rise to increased capillary permeability.

Recently, Scudder[4] and his associates have advanced the theory that alteration of the potassium content of the blood may play an important part in the etiology of shock. Cutler and Pijoan believe that the increase of plasma potassium in intestinal obstruction plays an important role in the cause of death. Other investigators have not been able to confirm these findings except in a few experimental animals, in which the potassium content of the blood was slightly increased a few minutes before death.

Shock not only has a varying etiology but produces varying physiologic changes in the body. This can be illustrated by shock produced by uncomplicated hemorrhage in contrast to shock produced by trauma. In shock due to hemorrhage there is dilution of the red blood cells caused by passage of the body fluid into the blood stream. In shock due to trauma, there is concentration of the red blood cells due to the passage of plasma from the vessels into the surrounding tissues. From the therapeutic standpoint this knowledge is very important when fluids are to be administered to the patient. From the diagnostic standpoint, hemoconcentration is the earliest evidence of shock in the absence of hemorrhage and the most sensitive index to its severity and progress.

DIAGNOSIS

It is obvious that in order to detect the earliest possible signs of shock and to formulate an adequate method of treatment, it is necessary that the basic physiologic pathology be well understood. Whatever the etiologic agent, one acting directly on the tissues as in trauma, burns, etc., or one acting indirectly through the nervous mechanism, the following train of events takes place:

In trauma, injury to tissues produces local loss of blood and plasma with sequestration of blood in the dilated capillaries and venules, which in turn gives rise to decrease in blood volume and decrease of blood flow to tissues. As the venous return is retarded, the cardiac output is decreased. The blood pressure then falls and causes further decrease in blood volume. General anoxemia follows with a depressant action on the vital centers. When the stimuli occur through the nervous mechanism, the first effect is peripheral contraction of the arteriolar bed. Contraction of the capillaries leads to blood stasis and local anoxemia of the endothelial lining of the capillary vessels and local injury to the capillary bed. This injury causes increased permeability of the capillary walls. Plasma is lost, hemoconcentration results, and the cycle of shock is initiated as in trauma.

What are the diagnostic procedures that may guide us to detect the onset of shock before the condition progresses to a point where it becomes irreversible? Obviously the answer to this question is relatively simple if one bears in mind certain chemical physiologic facts. First of all, one should understand clearly the function of the circulation of the blood and physiologic factors involved in maintaining adequate blood flow. If one remembers that an adequate number of red blood cells must be available to supply tissues with oxygen, the necessity of a complete blood count is obvious. Second, the plasma contains constituents which maintain a balanced osmotic pressure. These constituents are proteins that act as hydrophilic substances. Total protein content normally ranges between 6 to 8 per cent; when the loss of plasma through the capillaries causes this concentration to fall below the critical point of 5 grams per cent, cellular edema occurs. Conversely, the opposite change takes place in conditions of dehydration, namely, hyperproteinemia and cellular fluid loss. Obviously, to determine from a therapeutic standpoint whether blood plasma or salt is needed,[5] three simple procedures should be done: The determination of the number of red blood cells per cmm; their relative volume as determined by the hematocrit, and the total protein content of the plasma. It is logical, therefore, to advocate that every grave surgical risk should have at least these basic examinations in order to establish his base line. It is generally agreed that every patient should have a complete blood count and a urine examination. In addition, the hematocrit reading and total plasma protein estimation should be done. The purpose of these examinations is to obtain accurate information as to the physiologic status of the patient so that post-operative values can be better evaluated. These determinations may sound formidable. A few years ago they were formidable as well as costly to perform. Today, this information can be obtained quickly and inexpensively. The blood volume determination (hematocrit) is obtained by centrifuging a constant quantity of blood to a constant volume and calculating the ratio of the volume of packed cells to plasma. The hematocrit in men varies between 43 to 50 per cent and in women 38 to 43 per cent.

Estimation of the total plasma proteins used to be a difficult and time-consuming procedure; moreover, the task was offensive because of the suffocating odors inhaled during the digestion of the proteins by the familiar Kjeldahl method. Now, thanks to the work of Barbour and Hamilton,[5] we have

[4] Scudder, J.: Studies in Blood Preservation. Journal of the American Medical Association, **112**:2263, 1939.

[5] Barbour, H. G., Hamilton, W. F.: The Falling Drop Method for Determining Specific Gravity, Some Clinical Applications. Journal of the American Medical Association, **88**:91, 1927.

an indirect method of estimating total proteins by determining the specific gravity of the blood plasma. The method is quick and inexpensive. Instead of weighing the blood, the rate of fall of a single drop of plasma through a known specific gravity fluid is determined and the specific gravity of the plasma calculated. It requires accurate reagents and a stop watch capable of measuring split ⅕ of a second. This method checks very closely to the Kjeldahl method except in cases of hypercholesteremia, lipemia, and excessive bilirubinemia.

TREATMENT

In patients with marked anemia, the administration of fluids, such as glucose, must be given with great caution, not only because of further dilution of the total red blood cells, but also because of dilution of the plasma proteins. If the plasma proteins are low, fluid will quickly leave the blood vessels because of increased osmotic pressure in the tissue spaces. For a time, the use of gum acacia became very popular as a substitute for blood and plasma in the treatment of shock. However, subsequent studies have shown that the gum acacia may cause plugging of the small capillaries in vital organs producing permanent injury.

The use of crystalloids, such as salt and glucose, must also be given with great caution in shock. They are most effective in the prevention of shock when hemoconcentration alone exists. The use of salts will decrease the viscosity of the static blood and increase the flow. There is physiologic evidence that adrenal cortical hormone may be very useful early in shock by its action of maintaining endothelial tonus of the capillaries.

Inasmuch as anoxemia is the eventual result of peripheral vascular collapse, it would appear that the use of oxygen in the prevention and treatment of shock is definitely indicated. Recently, Boothby and Mayo have called attention to the fact that when oxygen is substituted for air, the arterial blood will carry a concentration of 10 to 15 per cent more oxygen. This at first would appear negligible in amount but in anoxemia it assumes important proportions. This contention is supported by Blalock and other investigators.

If the surgical risk is a gastro-intestinal type, one must bear in mind the question of nutritional deficiency in carbohydrates, proteins and the various vitamins. This deficiency may have developed because of food intake below maintenance level or because of lack of absorption. It is well also to mention the work of Ravdin and his associates who have shown that protein deficiency may lead to tissue edema in the operated field. In gastro-intestinal anastamoses, this edema may give rise to symptoms of obstruction. Moreover, they have shown that in hypo-proteinemia the emptying time of the stomach is reduced.

Equally important is the vitamin deficiency, particularly to vitamins B, C, and K. As you know, these vitamins are important in wound healing and control of the bleeding mechanism.

As in any other disease, the best treatment of shock is the prevention of it. As indicated above, shock is due to peripheral circulatory collapse and the process may become irreversible. Therefore, rational therapy is the application of the above principles. Since the most important finding in shock is the decrease of circulating blood volume, the most effective treatment is, of course, the use of the whole blood transfusion. If hemoconcentration and hyperproteinemia is the outstanding finding, the administration of salt and adrenal cortical hormone is the choice of treatment as it will decrease the hyperproteinemia and hemoconcentration and, thus, increase blood flow by reducing the blood viscosity. If hemoconcentration and hypoproteinemia is present, as in burns, the use of plasma is indicated.

DRUGS

The use of drugs in the treatment of shock has a very limited application. It is the consensus that the unfavorable effects of the drug far outweigh the favorable ones. The usefulness of caffein obtained by drinking hot coffee, together with local heat, is generally accepted. Digitalis is of no help. Morphine is the drug of choice to relieve pain and restlessness. The dosage should be minimal in order to avoid depression of the medullary centers which might add to the already existing anoxia.

The use of plasma to overcome blood protein loss is of greater value than the use of serum. Most authorities agree that plasma transfusions can be given in larger quantities without reactions than can serum. Serum frequently causes reactions. The plasma need not be typed. It is readily prepared and can be kept for months.

The use of colloidal solutions such as gum acacia have been discarded because they are dangerous and possess no advantages. The use of hypertonic solutions is at the present time in a state of controversy. Blalock[6] believes that hypertonic solutions are seldom indicated in shock. Bayliss also concurs with this opinion, stating that, since the tissues are already in a state of dehydration, there is little to be gained by a further dehydrating action. Scudder,[7] however, holds the opposite view. He believes that the action of sodium is of great importance in the treatment of shock since the action of potassium on smooth muscle and blood vessels is one of contraction and since such contraction results in a marked decrease in volume flow.

Sodium solutions dilute the inspissated blood in paralyzed capillaries, increase the velocity of flow, decrease the vasoconstriction, and increase the elimination of potassium through the kidneys. Some authors also recommend that cortical hormones be

[6] Blalock, A.: Principles of Surgical Case, Shock, and Other Problems. C. V. Mosby, 1940.

[7] Scudder, J.: Shock, Blood Studies as a Guide to Therapy. J. B. Lippincott Company, 1940.

given with hypertonic salt solution to facilitate the excretion of potassium and increase the tone of the capillary wall.

SUMMARY

The theories of shock and the physiologic pathology have been reviewed. With these principles in mind, the treatment of shock may be placed on a rational basis. The diagnostic procedures indicated are discussed with a plea for more frequent use of them.

CONCLUSIONS

1. Shock is defined as a condition of peripheral circulatory failure due to trauma or loss of fluid.
2. It is characterized by decreased blood volume, hemoconcentration and reduced volume flow.
3. The theory of absorption of toxins from traumatized tissue has been discredited.
4. The theory of peripheral arteriolar contraction and capillary injury has been accepted.
5. Three laboratory tests to diagnose the state of shock are advocated, i.e., red blood count, hematocrit, and total protein determination.
6. Plasma transfusion is preferable to serum and is indicated when there has been a loss of blood proteins. Salt administration is indicated when hemoconcentration is present.
7. Morphine, caffein and adrenal cortical hormone are the drugs of choice.

ABSTRACTS

VIRUS OF NEW LUNG DISEASE FOUND BY INTERNATIONAL COOPERATION

Discussing a recent announcement that J. M. Weir, M.D., and F. L. Horsfall, M.D., of the International Health Laboratories, New York, have been able by means of research carried on in New York and the British West Indies to isolate and identify the specific virus of the new type of lung disease known as "acute pneumonitis," *The Journal of the American Medical Association* for March 22 says that "aside from its epidemiologic importance the work of the two men is noteworthy and may long serve as a model of speed and effectiveness in international medical research, an inspiring example of preparedness for future epidemiologic emergencies."

Epidemics of the disease, since it was first described five years ago "have been reported with increasing frequency in a half dozen American states as well as in England and France, from which it is apparent that the disease can assume pandemic (widely distributed) proportions," *The Journal* says.

It is characterized by a remarkably high sickness rate and in some institutions or localities over 50 per cent of all persons have contracted the disease. No deaths have been reported so far in uncomplicated cases.

"The apparent recent increase in the frequency of this disease and its tendency to become pandemic rendered it of sufficient importance to warrant vigorous attempts to determine the causative agent," *The Journal* says.

About a year ago Drs. Weir and Horsfall attempted to infect all of the usual laboratory animals with the disease but without success. In the hope of finding a susceptible animal, it was finally decided to try the mongoose, an animal available in abundance in the Caribbean islands but whose importation to the United States is prohibited. By modern methods of transportation and communication, however, it was found feasible to divide the work between the New York laboratory and the British Tuberculosis Research Association at Kingston, Jamaica. Material from victims of the disease in New York was transported to Kingston and material from the mongoose was sent to New York for analysis.

"Studies of natural methods of infection have shown that the experimental virus disease in the mongoose is readily spread by contact," *The Journal* says. "The evidence therefore seems complete that the mongoose infecting virus is the cause of the current incipient pandemic of acute pneumonitis."

EARLY DIAGNOSIS OF CANCER OF SPINE

From their experience with 7 patients, Samual A. Wolfson, M.D., Samuel Reznick, M.D. and Lewis Gunther, M.D., Los Angeles, believe that an early and definite diagnosis of malignant spinal metastases can be made in spite of negative x-ray evidence, they report in *The Journal of the American Medical Association* for March 15.

They believe that when pain in the spinal column is limited to one or two spinal nerve roots, associated with localized tenderness; when the rate at which red blood cells precipitate (separate and settle down) is increased; when there is an increased level of phosphatase in the blood serum and there is no obvious explanation and demonstrable cause for these changes, that an early diagnosis of spinal metastases can be made.

SELECTION OF BLOOD BANK DONORS

Only those persons who have been born in this country and who have never lived in districts where malaria is prevalent should be used as donors for blood banks, Ernest F. Gordon, M.D., Yonkers, N. Y., advises in *The Journal of the American Medical Association* for March 22. He says that such a policy will minimize the possibility of spreading the disease from man to man. The first recorded case of an accidental transmission of malaria through transfused stored blood is reported by him.

LONDON BOMBINGS DEVELOP NEW USE FOR STETHOSCOPE

A new use for the stethoscope is reported by the regular London, England, correspondent of *The Journal of the American Medical Association* in the March 15 issue. He says:

"In gratitude for his work in removing delayed action bombs which fell in the east end of London, Capt. Robert Davies, who is in command of the bomb disposal squad, has been presented with a stethoscope by the resident staff of one of the hospitals. He has frequently borrowed a stethoscope from the hospital in order to listen to the ticking of delayed action bombs before removing them."

CARDIO-VASCULAR EQUILIBRIUM DURING ANESTHESIA*†

E. A. ROVENSTINE, M.D.
STEVENS J. MARTIN, M.D.
NEW YORK, N.Y.

Since the early anesthesia years it has been known that surgical narcosis is accompanied by actual or potential disturbances in circulation. The nature and extent of many of these derangements have been pointd out by laboratory and clinical investigations[1,2,3,4] especially with reference to the anesthetic agents or technics employed. No known attempt has been made to reveal the multiplicity of the changes involved by correlating the relationship of the various factors of anesthesia and their modification of normal compensatory circulatory mechanisms. In view of the recent advances in the physiology and pharmacology of circulation and their application to anesthesia, such a correlation is desirable for the thorough appreciation and treatment of cardio-vascular disturbances during anesthesia. Accordingly, it has been made the subject of this discussion.

The normal function of the cardio-vascular system is dependent not only upon the primary factors maintaining normal blood pressure and cardiac output but also upon the delicate and continuous integration of its many compensatory mechanisms. For purposes of simplicity, these have been grouped into those of neural, chemical, and mechanical origin. (Table 1.) Their presence and modus operandi have been explained by animal experimentation and largely inferred in the case of man.[5] In the group of neural factors, those producing arterial and cardiac changes by altering the tone of the vasomotor and cardio-inhibitory centers of the medulla, are the most numerous and most significant. They are generally the first to be called upon and their response is characterized by rapidity of action and dependence upon each other.

To the anesthetist, the influence of psychic or somatic stimuli upon the patient's cardio-vascular patterns before surgery needs no comment. Depression of cerebral and reflex irritability is facilitated by the use of adequate premedication. However, neither such medication nor general anesthesia can always eliminate the reflex effect of visceral traction upon the tone of certain medullary centers. While such disturbances may be often transient and insignificant, rarely they may be fatal. Scherf,[6] Reid and Brace[7] have shown that serious cardiac arrhythmias, due to changes in vagal tone, may occur reflexly from tension or irritation of the respiratory tract. Others[8,9] have emphasized the significance of the fall in systolic and pulse pressures following traction of abdominal viscera. Such visceral stimuli may appear in the unanesthetized (ruptured peptic ulcer), as well as in the anesthetized patient.

Variations in the flow or composition of blood reaching the medulla may also alter the tone of the cardio-vascular centers in that region. Anoxia or a lowering of the pH of the blood passing to the medulla due to carbon dioxide excess, within certain limits, stimulate the vasoconstrictor center to increase the blood pressure and thus provide a more adequate circulation. Carbon dioxide excess alone may slow the heart beat by direct stimulation of the cardio-inhibitory center.

Since the contribution of Heymans,[10] the role played by receptors in the wall of the carotid sinus, which are sensitive to variations in blood pressure, have assumed marked significance in the reflex control of the cardio-vascular system. An increase in the carotid blood pressure results in the passage of stimuli to the medulla to depress the activity of the vasoconstrictor center and to stimulate that of the cardio-inhibitory center. A decrease in blood pressure thus results. A fall in carotid arterial pressure stimulates the vasoconstrictor and depresses the cardio-inhibitory center to produce an increase in blood pressure. The aorta also contains presso-receptors whose afferent stimuli, however, are only depressor in function. A rise in aortic pressure produces a reflex depression of

* Presented before the Section on Anesthesia of the Indiana State Medical Association at the French Lick meeting, October 30, 1940.

† From the Division of Surgery, Department of Anesthesia, New York University College of Medicine, and the Division of Anesthesia, Bellevue Hospital, New York, N.Y.

[1] Adriani, J. The Pharmacology of Anesthetic Drugs. Charles C. Thomas Publ. Co., 1941 (in press).

[2] Beecher, H. K. The Physiology of Anesthesia, Chap. III. Oxford Univ. Press, N.Y., 1938.

[3] Kountz, W. B. Anesthesia and the Vascular System. Anes. & Anal. **19**, 1, 1940.

[4] Scevers, M. H. and Waters, R. M. Pharmacology of the Anesthetic Gases. Physiol. Rev. **18**, 447, 1938.

[5] Best, C. H. and Taylor, N. B. The Physiological Basis of Medical Practice, Chap. XXV, XXVII, 334, 379. William Wood and Company, Baltimore, Md. 1939.

[6] Scherf, D. and Boyd, L. J. Cardio-vascular Diseases. C. V. Mosby and Co., St. Louis, 1939.

[7] Reid, L. C. and Brace, D. E. Irritation of the Respiratory Tract and its Reflex Effect upon the Heart. Surg. Gyn. & Obstet., **70**, 157, 1940.

[8] Burnstein, C. L. and Rovenstine, E. A. Circulatory Disturbances Reflexly Inaugurated by Stimulation of the Celiac Plexus. Arch. Surg., **35**, 599-602, Sept., 1937.

[9] Rovenstine, E. A. and Hershenson, B. B. Anesthetic Complications from Reflexes Excited During Abdominal Surgery. J. Can. Med. Assn., **39**, 538, 1938.

[10] Heymans, C. The Presso-receptive Mechanisms for the Regulation of Heart Rate, Vasomotor Tone, Blood Pressure and Blood Supply. New Eng. J. Med., **219**, 147, 1938.

TABLE I

NORMAL CARDIO-VASCULAR MECHANISMS

A. NEURAL FACTORS:
- 1. Arterial and cardiac changes
  - (a) Reflex tone of medullary centers
    - 1. Psychic and somatic stimuli
    - 2. Visceral stimuli
      - pulmonary cardio-vascular
      - abdominal traction reflexes
    - 3. Blood gas changes—CO_2 and O_2
  - (b) Aortic depresso-receptors
  - (c) Carotid sinus presso-receptors
  - (d) Pacinian corpuscles
  - (e) Local axon arteriolar reflexes
- 2. Venous and cardiac changes.
  - (a) Bainbridge reflex
  - (b) McDowall reflex
- 3. Capillary changes
  - (a) Sympathetic efferent nerve supply

B. CHEMICAL FACTORS:
- 1. Local effects (chiefly on capillary bed)
  - (a) Oxygen want } via carotid body
  - (b) Carbon dioxide excess } chemoreceptors
  - (c) Metabolites (lactic acid, etc.) and pH changes
- 2. General effects (chiefly on nervous system)
  - (a) Oxygen want)via carotid body
  - (b) Carbon dioxide excess) chemoreceptors
  - (c) Metabolites and pH changes
  - (d) Epinephrine secretion
  - (e) Acetylcholine secretion

C. MECHANICAL FACTORS:
- 1. Starling's law of the heart
- 2. Effects of respiration
- 3. Position of body and hydrostatic effects
- 4. Action of skeletal muscles

TABLE II

MODIFYING FACTORS DURING ANESTHESIA

A. FACTORS:
- 1. Premedication
- 2. Anesthetic Agents
- 3. Anesthetic technic
- 4. Induction of anesthesia
- 5. Depth and duration of anesthesia
- 6. Oxygen want
- 7. Carbon dioxide excess
- 8. Position of patient
- 9. Surgery (trauma, hemorrhage)

B. MODIFICATION OF MECHANISM:
- 1. Neural factors
- 2. Neural and chemical
- 3. Chemical
- 4. Neural and chemical
- 5. Neural and chemical
- 6. Chemical
- 7. Chemical
- 8. Mechanical
- 9. All factors

the vasoconstrictor center and a stimulation of the cardio-inhibitory center. The combined action results in a fall in blood pressure. By the activity of both the aortic and carotid sinus regions, a peripheral increase in blood pressure is counterbalanced by central action.

Recently Gammon and Bronk[11] have shown that dilation of mesenteric arteries results in the stimulation of certain presso-receptors which are not unlike Pacinian corpuscles and lie in close relation to these vessels. The afferent impulses pass to the medulla to stimulate the vasoconstrictor center to produce a reflex rise in blood pressure. Again peripheral variations in arterial pressure are modified by central action.

The importance of local axon reflexes[12] in altering arteriolar tone with the impulse passing to the vessel without reaching the central nervous system is now being appreciated as another mechanism in the large group which help maintain cardiovascular equilibrium.

Aside from reflexes affecting changes in the arterial tree, there are a few which are stimulated on the venous side. An undue or sudden increase in venous return with a rise in vena cava and right auricular pressure stimulates vagal afferent fibers in these regions. The stimuli pass to the medulla to depress the cardio-inhibitory center. Thus a reflex increase in heart rate (Bainbridge reflex)[13] occurs to facilitate the removal of the added venous load to the heart. The same stimulus, according to McDowall,[14] seems also to stimulate the vasoconstrictor center to produce a rise in arterial pressure. These two reflexes have been regarded as antagonistic to the depressor reflexes arising from the aortic or carotid sinus regions. Other reflex activity of the veins is that mentioned by Heymans who stated that these vessels play a role in the pressor and depressor responses from the carotid sinus region via their sympathetic innervation.

Insofar as the capillary bed is concerned, the neural factors affecting changes in circulation normally play little or no part. Evidence has been presented that the capillaries receive a sympathetic nerve supply and hence, theoretically at least, the capillary bed may constrict following a strong sympathetic impulse.

The chemical factor regulating cardio-vascular equilibrium while phylogenetically older, acts more slowly and for a longer period of time than those of neural origin. Those that operate locally in the tissues exert their direct action essentially on the capillary bed; those producing widespread changes in the circulatory tree act secondarily by way of central nervous system reflex activity. It is a well established fact that oxygen want produces capillary dilatation and secondly a decrease or a loss in capillary permeability. Carbon dioxide excess or the accumulation of certain metabolites such as lactic acid, similarly produce capillary dilatation. These phenomena occur in exercise and are of obvious advantage to the organism. The vasodilatation and increased blood supply to localized areas of increased activity is counterbalanced by a vasoconstriction elsewhere in the body (Lovén

[11] Gammon, G. D. and Bronk, D. W. Pacian Corpuscles in the Mesentery and their Relation to the Vascular System. Proc. Soc. Exp. Biol. & Med., **31**, 788, 1934.

[12] Bruce, A. N. Vaso-dilator Axon-reflexes. Quart. J. Exp. Physiol. **6**, 339, 1913.

[13] Bainbridge, F. A. On Some Cardiac Reflexes. J. Physiol. **48**, 332, 1914.

[14] McDowall, R. J. S. A Right Auricular Pressor Reflex. J. Physiol., **81**, 5, 1934.

reflex). The compensatory shunt of blood is necessary if fatal capillary pooling of blood is to be avoided. This is accomplished by the same stimuli coming from the capillary bed which act upon certain medullary centers. Thus, a decrease in the pH of the blood due to carbon dioxide excess or lactic acid accumulation can stimulate the vaso-constrictor center to produce a rise in blood pressure. The low H ion concentration of the blood and particularly anoxemia may also produce the same result reflexly by their action on the chemo-receptors in the carotid and aortic bodies.[15] Impulses from the latter stimulate the vaso-constrictor center of the medulla and a rise in blood pressure develops. Other chemical methods of altering the cardio-vascular system depend upon the secretion and well known actions of adrenalin and acetylcholine. Profound increases or decreases in heart rate respectively, with corresponding changes in blood pressure may occur depending upon which part of the autonomic system is stimulated.

While mechanical factors influencing cardio-vascular equilibrium are considered by some to be of less significance as compared with those of neural or chemical origin, they, nevertheless, play a part and at times may assume great importance. Starling long ago has shown that the denervated heart can respond to a greater cardiac filling with a more effective systolic contraction. Within physiological limits, therefore, the greater the venous return, the greater the systolic output. Cardio-vascular effects due to respiratory excursions are many and concern changes in heart rate as well as blood pressure. Normal inspiration, with its accompanying increase in the negative intrapleural pressure and compression of the peritoneal contents particularly the inferior vena cava by the descent of the diaphragm and contraction of the abdominal muscles, greatly facilitates return of venous blood. Due to the increased capacity of the pulmonary capillary bed, the subsequent systemic rise in blood pressure appears in the middle phase of expiration. The heart rate during inspiration is also slightly increased due to a depression of the cardio-inhibitory center by impulses arising in the vagal afferent nerves. Such a rise facilitates the removal from the pulmonary bed of blood brought in during inspiration. The phenomena act in reverse order during expiration. Obviously, the greater the thoracic excursions, the greater the magnitude of these effects.

The position of the body can exert a great hydrostatic influence on the cardio-vascular system. This factor is of particular significance in patients with a poor labile system or those with a depressed compensatory mechanism of circulation as noted in some planes of anesthesia. The load put upon the heart of such patients placed in the Trendelenburg position can be injurious if not fatal. Normal venous return aside from respiratory movements is greatly aided by the "milking action" of skeletal muscles. Such a mechanical factor is facilitated by the presence of valves along the course of the large veins of the extremities.

These cardio-vascular mechanisms, whether of neural, chemical or mechanical origin, all function to maintain circulatory equilibrium by neutralizing the disturbances produced by extraneous stimuli. During anesthesia, however, some of these mechanisms become inactive, such as effects from psychic stimuli or those from contracting skeletal muscles; others become more sensitive. Anesthesia itself, as well as surgical procedures, may profoundly modify the activity of normal cardio-vascular mechanisms. Some of the more important factors introduced by anesthesia and the essential modifications they produce are outlined in table 2. It can be readily noted that during anesthesia and surgery, any one group or all normal cardio-vascular mechanisms may be modified. Depending upon the anesthetist's fundamental knowledge of the physiology of circulation and his technical skill, disturbances in the normal activity of these mechanisms may be minimized if not avoided entirely.

The following case reports serve to illustrate the wide range of cardio-vascular disturbances which may occur during anesthesia and some of the methods used to restore circulatory equilibrium. Because of the scope of the subject, the discussion of shock in all its forms has been purposely omitted.

Illustrations 1 to 3 show the effect of neural factors in producing cardio-vascular imbalance. Case 1 represents a type of circulatory disturbance due to a vagal reflex initiated by the application of traction to the hilus of a lung during the course of cyclopropane anesthesia for lobectomy. In the first instance, the sudden fall in blood pressure probably resulted from a marked decrease in cardiac output due to vagal influence, to a central vaso-constrictor depression or both. In the second instance, the sudden asystole and concomitant disappearance of blood pressure is interpreted to be the result of a strong vagal impulse. Death soon followed. This outcome might have been avoided by the timely administration of an adequate dose of atropine sulphate or by infiltrating a procaine solution around the hilum being stimulated.

Case 2 illustrates the significant changes that may occur following mechanical stimulation of the carotid sinus. During a thyroidectomy with cyclopropane anesthesia for thyrotoxicosis, the use of self-retaining retractors along with manipulation of tissues and application of traction in the carotid sinus region were followed by a marked fall in systolic and diastolic blood pressures and the pulse rate. At points V and VI, 5 cc. of a

[15] Schmidt, C. F. and Comroe, J. H. Functions of the Carotid and Aortic Bodies. Physiol. Rev. **20**, 115, 1940.

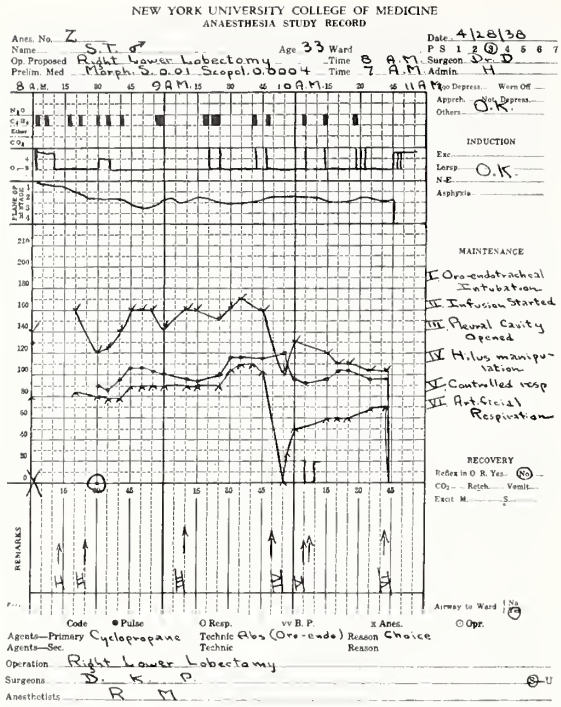


Fig. 1. Asystole and circulatory collapse following vagal stimulation during manipulations of hilar structures while completing lobectomy.

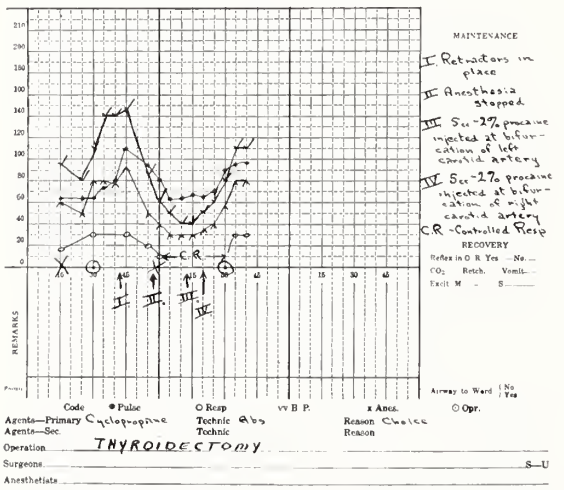


Fig. 2. Bradycardia and hypotension from carotid sinus stimulation during thyroidectomy. Successful treatment with procaine injections.

2% solution of procaine was introduced into the right and left carotid sinus areas respectively. This was followed by a prompt return of blood pressure and heart rate to a normal level and surgery was completed uneventfully.[16]

Case 3 illustrates the marked vascular depression that often results from traction applied to viscera in the upper peritoneal cavity. In this

[16] Rovenstine, E. A. and Cullen, S. C. The Anesthetic Management of Patients with a Hyperactive Carotid Sinus Reflex. Surgery, 6, 167, 1939.

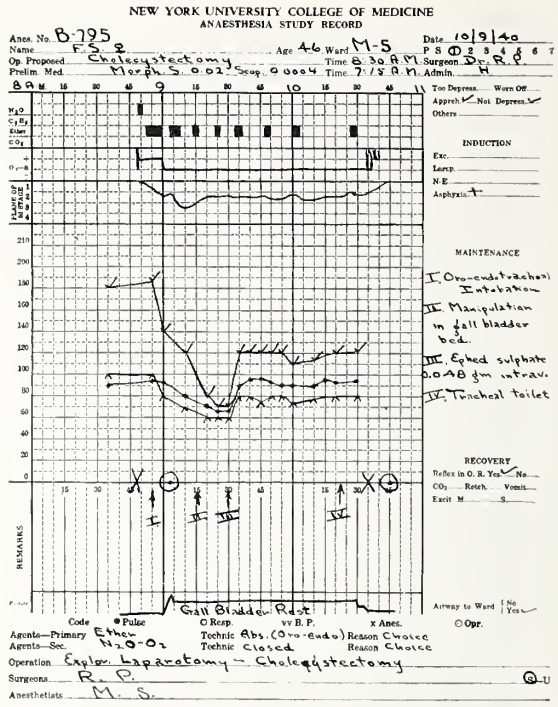


Fig. 3. Traction reflex stimulated by manipulations about the celiac plexus causing hypotension, decreased pulse pressure and little change in pulse rate. Successfully treated with ephedrine.

instance, the depression was superimposed upon that due to deep third plane anesthesia and to surgical trauma. During the course of an exploratory laparotomy under nitrous oxide-oxygen-ether anesthesia, tension was applied to the gall bladder and surrounding structures. A characteristic fall in systolic and diastolic pressure with a significant and potentially dangerous decrease in pulse pressure followed. The heart rate remained essentially unchanged. Such a circulatory derangement may readily lead to secondary shock if permitted to continue. Since it was, in large measure, due to depression of the central and peripheral portion of the vasomotor mechanism, ephedrine sulphate 0.048 gm. was administered intravenously. The rise in blood pressure with the development of an adequate pulse pressure promptly followed with the restoration of cardiovascular balance. Lightening of anesthesia was a minor factor since it was tried without success 18 minutes before the administration of ephedrine.

Illustrations 4 and 5 are typical examples of circulatory disturbances due to chemical factors: carbon dioxide excess as well as asphyxia. A middle-aged woman was given nitrous oxide-oxygen-ether anesthesia during a hysterectomy (case 4). Thirty minutes after induction of anesthesia a significant increase in systolic blood pressure (220 mg Hg) was noted. This was believed to be due to carbon dioxide accumulation and was partially and temporarily relieved by inserting a fresh soda lime canister into the closed carbon dioxide system. A second rise followed this time

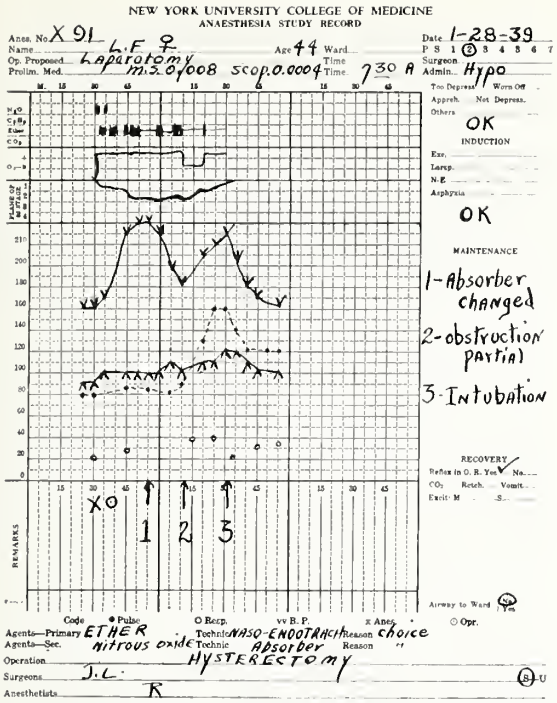


Fig. 4. Effects upon circulation of carbon dioxide excess, with and without oxygen want during anesthesia.

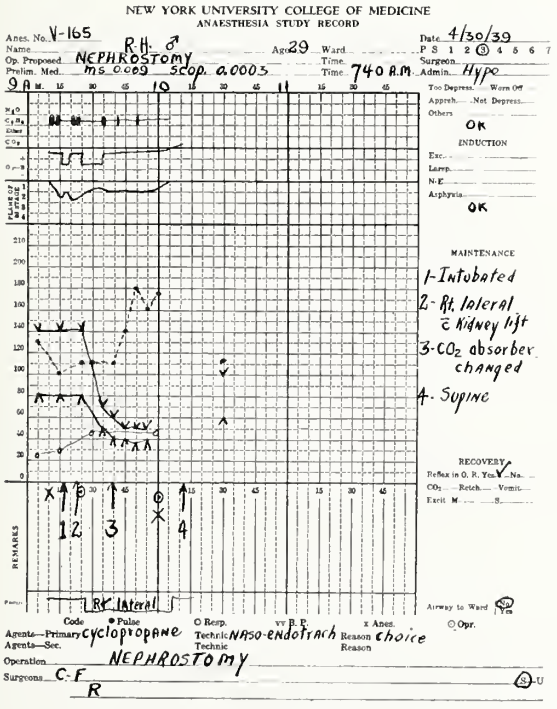


Fig. 5. Circulatory collapse following change in position during anesthesia.

as a result of a partial upper respiratory tract obstruction. The latter carbon dioxide excess this time was accompanied by oxygen want which can account for the development of the tachycardia. The insertion of a naso-endotracheal airway

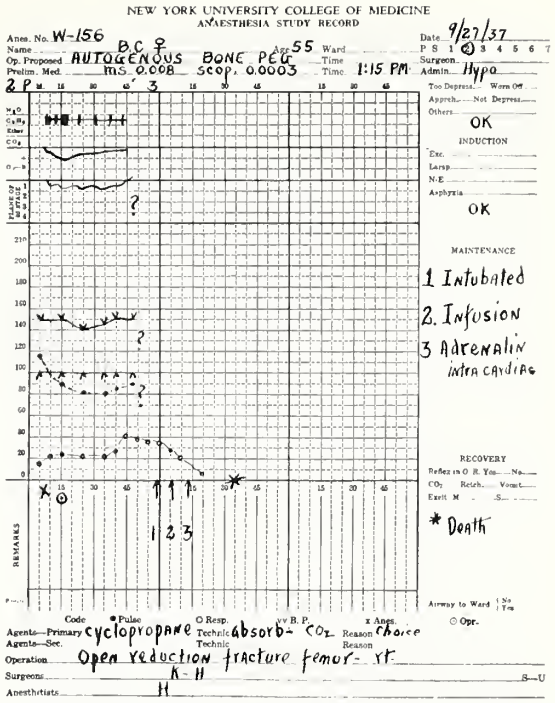


Fig. 6. Circulatory collapse and death from fat emboli during anesthesia.

quickly alleviated the asphyxia; the blood pressure and heart rate were promptly decreased.

Illustrations 5 to 7 show the effect of certain mechanical factors occurring during anesthesia which alter cardio-vascular balance. In case 5, during cyclopropane endotracheal anesthesia to complete a nephrostomy in a man aged 29, the change in position from a supine to a right lateral one with a kidney lift was immediately followed by shock-like manifestations of the cardio-vascular system. The blood and pulse pressure fell as the heart rate increased. This disturbance may be accounted for largely by reflex stimulation initiated by the mechanical factor of a sudden positional change. No preanesthetic disturbance in circulation was noted and surgery had not started at the time vascular depression began. The return to a normal position, even after surgery, however, was accompanied by a more normal circulatory balance.

During an open reduction of a fractured femur, using cyclopropane anesthesia (case 6) the blood pressure and heart rate suddenly disappeared 40 minutes after surgery was started. Significantly enough, the respirations continued. Following the introduction of an oroendotracheal tube and the use of an infusion and intravenous adrenalin, no return of circulation was noted and the patient was pronounced dead 40 minutes later. The presence of fat emboli in the lungs was proven by autopsy.

Under light cyclopropane endotracheal anesthesia for drainage of a pericardial effusion (case

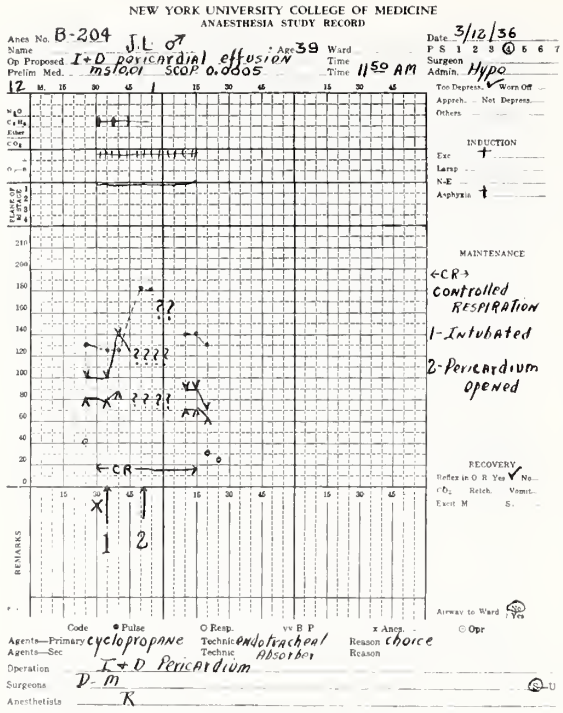


Fig. 7. Cardiac tamponade during anesthesia.

7), the blood pressure suddenly disappeared ten minutes after surgery was started. The heart rate increased from 120 to over 180 beats per minute. The possibility of a cardiac tamponade with a serious impairment of cardiac filling aggravated by a poorer venous return when the chest was opened, was promptly appreciated. Accordingly, the pericardial sac was incised and quickly drained. This was dramatically followed by a more adequate diastolic filling of the heart and cardiac output.

The foregoing discussion and the cases cited will serve to emphasize the complexity of the problem associated with maintaining an adequately functioning circulatory system during anesthesia. The problem is now being appreciated from the standpoint of the numerous physiological mechanisms involved and the role of anesthesia and surgery in the disturbance of these mechanisms. Anesthesia with all its modern improvements has not achieved the success in evaluating, preventing or treating circulatory emergencies other than traumatic shock, that has attended efforts to eliminate respiratory emergencies. The better handling of respiratory disturbances resulted from the knowledge accumulated in the physiological, pharmacological and chemical laboratories being applied to clinical practices. Efforts to protect the surgical patient from circulatory derangements will probably be more successful when the recent and future advances in the physiology and pharmacology of circulation are more widely applied to anesthesia. It is at least safe to say that the emphasis should be placed in that direction rather than toward acquiring new anesthetic agents or technics and using them more or less empirically.

477 First Avenue.

DISCUSSION

Charles N. Combs, M.D. (Terre Haute): This is a popular year for Indiana boys of humble origin to come back to their native state and receive applause and acclaim. We have been honoring Elwood, and now we are honoring LaPorte.

The only reason I can think of to explain my presence here is that I would be able to voice the general appreciation and interest this paper has aroused, because I am at a loss to discuss it from a scientific standpoint. I would have had to attend the year's lectures given by Dr. Rovenstine about these first three slides he showed before I could discuss the rest of the paper. I am sure we were all very much interested.

I was indicted by the early part of the paper because I was trained in the old empiric stage of anesthesia, when we thought all we had to do was watch the respiration; and if we kept the airway open and supplied oxygen, the circulatory affairs would take care of themselves. It is amazing that I should have the audacity to continue to give an anesthetic without knowing all about these signs and symptoms and carotid sinuses. My limitations are such that I can not be a graphological artist and an anesthetist at the same time. I would have to do one or the other, so I keep on giving the anesthetic.

In default of knowing how to manipulate all the gadgets, and so forth, I, at least, try to keep myself awake. I remind myself all the time that I must be alert every second of the time. If I learn anything as I go down the line, that is the lesson: that the anesthetist must be alert continuously. You need not be an alarmist, but you certainly must be apprehensive all the time.

If you do that, and listen to the papers that you hear around at the meetings, it may not be so bad for the patients. The average run of hospitals turn out patients right along. I don't know how the mortality rate might compare with Bellevue, but we do the best we can.

We are very grateful to Dr. Rovenstine for taking the time to come out here. I hope he feels that it was worth while, as much as we do. I know that if you go to Bellevue, you will be received most courteously and warm-heartedly by Dr. Rovenstine, and that he will go into more detail about what these mean and will show you the cases. I have been a recipient of his hospitality, and I hope to go back again. I hope each one of you may have the same treat.

G. O. Larson, M.D. (LaPorte): I would like to ask Dr. Rovenstine what his personal preference is for premedication for the average thyroidectomy?

Roy A. Geider, M.D. (Indianapolis): Dr. Rovenstine spoke of the effects of cyclopropane upon the heart muscle. There has been some talk about the question of safety of cyclopropane in toxic goiter. Dr. Frank Lahey told me a couple of weeks ago that they were attempting to get away from straight cyclopropane with toxic goiters because of the heart effect. We have for a long time used ether with our cyclopropane in toxic goiter cases. I would appreciate Dr. Rovenstine's opinion regarding cyclopropane in toxic goiter cases.

Floyd T. Romberger, M.D. (Lafayette): I wish to compliment Dr. Rovenstine very highly for an interesting paper. I am glad to hear the discussion which it has provoked, and I shall be very much interested in his answers to the questions asked.

If I could add my own experience in a small way, perhaps, to some of the things which he demonstrated here, I would like to say that I have in my archives, and among my lantern slides, records which show cases in which we had a marked falling of blood pressure without a disturbance in the rate of pulse in a large number of cases. I believe such fall is due largely to traction reflexes, as the doctor has explained.

Chairman Zaring: I would like to ask the doctor one thing: He spoke of the peripheral circulation at one time. What do you think of that demonstration that Guedel gives in his book about the peripheral circulation on the forehead, and the return of that?

Dr. Rovenstine: I am sure, Dr. Combs, that you are too modest when you say you are not familiar with many of the things I discussed. You were probably aware of their existence long before I knew or talked about them. It may be that you do not talk about traction reflexes, the carotid sinus syndrome, and other reflex phenomena with the terms I employ but you have observed these reactions and you are undoubtedly familiar with methods for handling complications coincident with their occurrence. It does not necessarily follow that one is an expert anesthetist who knows all the textbook physiology or that one is a mediocre anesthetist who recites little that is printed in physiological literature. Experience is a necessary and usually a good teacher.

The question of premedication for thyrotoxic patients may be discussed from several standpoints. The agent and technic that will be employed is an important consideration. However, with any inhalation anesthesia a primary function of premedication is the reduction of metabolic activity. Morphine and scopolamine serve well for this purpose. Doses depend upon the relative increase in the metabolic rate. We do not hesitate to use ½ gr. of morphine and 1/50 gr. of scopolamine in divided doses. We feel it advisable to keep the ratio of morphine to scopolamine at 25 to 1. I much prefer the effects from such premedication to those following avertin in amylene hydrate. The latter in effective doses reduced minute volume respiratory exchange, a complication to be avoided postoperatively, probably more than the former. The duration of profound reaction to avertin is considerably longer than from morphine.

The merited use of cyclopropane for patients with thyrotoxic heart disease is disputed. If such patients are more likely to develop serious arrhythmias during cyclopropane anesthesia than with other agents, and there is some clinical evidence that this is true, then cyclopropane should be avoided. There is as yet no agreement among informed observers that we can protect against arrhythmias by premedication or technic of anesthesia. Unless such protection is assured it would seem unwise to use cyclopropane for the particular patient, the one with thyrotoxic heart disease, where disturbances in the conduction mechanism are a grave complication.

Recent laboratory experiments have convinced us that cyclopropane, unlike other agents given by inhalation, stimulates the parasympathetic division of the autonomic nervous system with marked vagal effects upon the heart. This observation has led us to favor atropine in preparing patients for cyclopropane anesthesia.

The increased capillary oozing attributed to cyclopropane is not denied. This effect is not due to a disturbance of the bleeding or coagulation time of the blood. It may result from a disturbance of the capillary contractile mechanism. Such increase in capillary oozing as may occur is probably of too little consequence to contraindicate the use of the agent where otherwise it might be indicated.

Anesthesia maintained with one primary bronchus obstructed by an endo-bronchial airway followed naturally the use of endotracheal airways. If one bronchus can be occluded and respiration maintained in one lung, operations in the thoracic cavity are facilitated and the hazard of blood, pus or secretions from one lung contaminating the other during operation is eliminated. We have used this procedure satisfactorily. It is technically difficult to introduce the catheter in the left bronchus and it is not convenient to maintain artificial respiration in one lung. These difficulties may preclude the wide utilization of endobronchial technics but they do offer a worthwhile safeguard in certain selected cases.

I have already discussed the fallacy in using adrenalin during cyclopropane anesthesia. For further emphasis, I believe its use is never justified.

The plane of anesthesia required to eliminate the "celiac plexus" reflex varies with individuals. It is rarely observed in the lower third or fourth planes, but it has been noted during such profound narcosis. The point is that with an active "celiac plexus" reflex present, deepening anesthesia may not regularly relieve an undesirable situation.

This is the third of a series of requested articles on the "Twelve Great Killers" in Indiana. Next month the article will deal with "Accidental Deaths."

PRESENT DAY ASPECTS OF THE ETIOLOGY OF CANCER

N. K. FORSTER, M.D.
HAMMOND

Many reliable sources indicate that there is a genuine increase in the incidence of cancer, not only as regards special types of cancer, but as it applies to the disease in general. While it is true that the prolongation of life, to about the expectancy age of 60, has resulted, paradoxically, in a far larger proportion of human beings reaching the years when the disease is most likely to strike, nevertheless, the mortality toll from cancer has advanced, year by year, until it is now exceeded only by the heart disease group. More than 150,000 persons die each year in the United States from some form of cancer. Because of this appalling rate, it is readily understood why individuals as well as local and national governments are concerning themselves in movements directed toward overcoming the prevailing attitude of hopelessness in its eradication.

Our limitations and ignorance as to the true cause and nature of this disease have been materially dispelled in the past two decades through an ever increasing fund of information, supplied by individual research workers, concerning the characteristics of these growths and, to some extent, how they may be produced. But the true origin of cancer, the elementary factor which causes an orderly functioning cell to be transformed into a ruthless gangster, still remains unsolved. In addition, the effort to assemble all of the pertinent facts from the literature bearing on the cause of cancer becomes an herculean task, since it presupposes all-encompassing knowledge of such subjects as biology, heredity, chemistry, pathology, metabolism, radiant energy, vitamins, enzymes, viruses, and the internal secretions of the ductless glands.

From this diversified accumulation of material, however, some clarification may be attempted and fundamental data presented which may serve as a basis for a better understanding of this problem.

BIOLOGICAL CONSIDERATIONS

No matter what the contributing factor may be, once malignant characters have been assumed by a cell, they become a fixed property of that cell. In the experimental transplantation studies in animals, and in tissue culture studies, it has been shown that the elements responsible for the original development of the growth were no longer concerned in the continuation of the process following transplantation. The cells continue their malignant characteristics without the continued presence of carcinogenic agents, and in recipients who exhibit no evidence of disturbances of the endocrine system, or of visceral dysfunction. This is illustrated in the fact that transplanted mammary gland cancer will grow in the male, castrated animal, or female.

In addition it has been borne out that the type of cancer with its particular histological pattern, its rate of growth, tendency to and manner of invasion, and its general behavior are all fairly constant for each type of tumor. In other words, the malignant manifestations of the cells become a fixed character. Consequently it can be concluded that once malignancy is established in a cell, regardless of what the factor or factors may be which effect such a change, the malignancy becomes an automatic process and will function, as such, independently of the presence of any outside force or agent and become a fixed character of the cell, which is passed unchanged to its descendants.

For a long time attempts have been made to demonstrate fundamental differences between normal and malignant cells of the same tissue type as to their chemical make-up, enzyme content, metabolism or structure. These have failed to show any striking variations. The laws which govern the successful transplantation and growth of normal tissues are similarly operative in the transplantation and growth of cancer grafts. Again it has not been proved that the sensitiveness of cancer cells to the action of heat, cold, x-rays, or radium differs from normal cells of the same type. It is possible to transplant living tumor cells, but the intimately contacting normal cells of the host do not themselves become malignant by reason of this close contact. They may become invaded by the grafted cells, but their own morphology and characteristics are not altered. In addition to pointing the fixed character of the tumor cell itself, transplantation also contributes to the lack of evidence of any infectious nature of cancer. While it may be true that certain parasites, bacteria, or viruses may be instrumental in inciting malignant changes in other organisms, they do not play any role in the continuation of the process once it is established.

It has been generally agreed that the malignant change which occurs is in the nature of an intracellular change, and while there is no fundamental finding to which the microscopist can point as constituting the beginning of this change, it is still evident in the transformation of an orderly, regulated type of cell to one whose physiology is

distorted and whose growth characters are unrestricted. This change, once effected, in the individual cell is self-perpetuating and all of its descendants retain the same malignant qualities and breed true to type. This has been demonstrated in experimental animals over a period of thirty years in observing the behavior of transplanted neoplasms.

Definite conclusions, therefore, may be drawn from the evidence presented in the literature regarding the role of the cell in cancer development:

1. All growing cells have a cancer potentiality.
2. Once this potentiality has been stimulated, the inciting factor is no longer necessary to the continued malignant growth of the cell.
3. The malignant response, once invoked, becomes a fixed character of the cell.
4. The malignant change is in the nature of an intracellular mechanism, which once provoked, proceeds in uncontrollable, robot fashion and is transmitted to all of its future cell descendants.

THE FACTOR OF HEREDITY

The predominant basis which has been utilized to explain the potentiality of cells to develop cancer characteristics has been the hereditary constitution. Early support of this theory was given in the observation that it was possible to segregate families of mice showing a higher cancer rate than the average; and the additional finding that the tendency to develop cancer in a given family was limited, more or less, to a special organ or tissue, as exemplified in the mammary cancer families, the sarcoma families, the lung cancer families, and similar strains. Opinions that the development of cancer in such families was due to a generally uncertain cell system were disproved by the fact that those families showing a high cancer rate for the lung or breast too often proved more stubborn to induced cancer of the skin, than those presenting a low incidence of cancer. Environmental conditions also entered into the picture to indicate that there might be an additional factor of release necessary. Some items such as lowered resistance, intensive breeding, mammary duct blockage, heavy dosages of estrogens, subcutaneous or surface applications of chemical carcinogens provoked an increase in the rate of mammary gland tumor in mice, and the lung tumor rate. It appears, however, that the type of inheritance differs with various strains of tumors. Thus it seems that cancer of the breast is consigned more readily by the female than by the male, suggesting an extrachromosomal influence, while in cancer of the lung there seems to be a definite genetic influence.

If we follow the results of experimental forced breeding, we find that those families of mice which under normal circumstances give a high rate of cancer of the breast show an increased rate when subjected to this impetus. If, then, the females of this strain are prevented from breeding, the rate becomes very low. In addition, pre-pubertal castration decreases the incidence rate to a negligible one. Further the males of such families, castrated early in life, and later engrafted with ovaries, or injected with estrogenic substances, develop mammary tumors nearly as often as do the virgin females. Further, in lung cancer families, the degree of susceptibility to carcinogenic factors is almost equal to the number of those exhibiting tendency toward spontaneous lung neoplasms.

This, of course, brings us back to the previous conclusion that malignancy is a potentiality of all cells, and that this potentiality is an inherent quality in its proclivity for unlimited growth. Since the manifestations of this potentiality will vary to a great extent, dependent upon the tissue involved and the cell type, it is evident that this must be a variable quantity. The more sensitive a group is, the more readily may its malignant propensities be set off through normal physiologic processes or by any of the many stimulating agents. This new manifestation of cell activity appears to develop suddenly, and in the human species, in many cases, without evident relationship to any provocative agent. The evidence of a somatic mutation in its transition is very strong. So far as the human species is concerned, there has never been any collected series of cases, which were sufficiently accurate, complete, and satisfactory, to warrant definite conclusions. And yet, the evidence of isolated cases and the investigations of competent students reveal the definite relationship between the incidence of cancer and those family groups hereditarily disposed. Thus it appears that, in the groups which may be considered more sensitive to the development of cancer through the influences of hereditary factors, the strain of normal physiological factors may be an influence in the conversion of normally functioning cells to those of a malignant character. Even in resistant groups, this same tendency may be activated by certain agents which incite the change.

Therefore, if we are to summarize the factors of heredity in the production of cancer, we find that there are definite conclusions which may be drawn:

1. There are certain types of cancer which appear to bear definite familial relationship.
2. The susceptibility to the development of cancer may be augmented by the use of strong inciting factors.
3. Cancer is not handed down to an individual as such, but the cellular susceptibility is very strong and under the influences of perverted physiologic processes, or extraneous influences, may be so strong as readily to develop the neoplastic growth.
4. There are, in addition, many extraneous factors, such as environmental conditions, metabolic influences, oxidation processes, the interchange of accelerating and inhibiting ele-

ments, extrachromosal elements and the domination of certain glandular secretions which must be considered in the ultimate determination of the cause of cancer.

5. In the final analysis, it appears that the cancer tendency, regardless of the mode of inheritance, is definitely dependent upon a poorly balanced cell system, and one whose cells possess a high potentiality for malignancy.

INCITING FACTORS

In the search to determine the cause of cancer, it has been repeatedly emphasized that so many diverse types of cancer, with which we are familiar, cannot arise through the influence of a single agency. And yet it is wholly compatible that the initial cellular change, arising in a variety of tissues or organs, may be the same manifestation of cellular reaction mechanism. Following the initial demonstration, that cancer could be produced by certain inciting factors, evidence was soon forthcoming that many human occupations appeared to be provocative of cancer, and that there was a wide variety of substances capable of inciting malignant changes. We need but to refer to a few. The incidence of cancer developing in chimney sweeps, copper smelters, coal tar distillers, miners, aniline dye workers, mule spinners, paraffin workers, radium dial painters, x-ray workers, out-door workers and a host of other carcinogenic possibilities give ample evidence of the role played by these agents in the production of cancer. No better classification has been offered of the predisposing factors related to the production of cancer than that suggested by Morton.

1. Physical
   a. Traumatic
   b. Thermic—cold, heat
   c. Actinic—ultraviolet, roentgen rays, radium.
2. Chemical
   a. Stasis
   b. Simple chemicals
   c. Coal tars
   d. Internal secretions—estrogens, vitamins
3. Biologic
   a. Bacteria
   b. Viruses
   c. Helminths
4. Combinations of 1, 2 and 3.

The original deduction that the influence of any one of the substances falling under this classification was due to the factor of chronic irritation has now been largely discarded. This was demonstrated in that many of the most active substances were almost entirely devoid of irritating effect. Since such a large number of carcinogenic agents are known, it is probable that no definite chemical structure is necessary for carcinogenic activity. The kind of these agents include acids, alkalies, metal salts, radio-active compounds, sugars, complicated dyes, hydrocarbons, estrogens and viruses. Evidently the action of these agents is a toxic one resulting in damage to the tissues to which they are applied. Ultimately an aging of the tissues occurs precipitating changes toward sterility. Just what the primary step is in the induction of cancerization remains unsolved. However, from the mass of deductions in experimental studies, it appears that some general conclusions may be drawn.

1. Carcinogenic agents, of whatever kind or nature, may initiate a process which leads to malignancy, but having performed this accomplishment, they are no longer necessary to the further completion of the process.
2. Practically all classes of cells may be rendered malignant under the influence of one or more stimulating agents.
3. The transformation of normal cells, normally functioning, to atypical unregulated cells, remains a mystery.

Thus, in the final analysis of all inquiries into the causation of cancer, we can state that much has been learned regarding the behavior and production of these tumors. It is established that the primary manifestation of cancer is an intracellular alteration in the tissues involved. They then become released from the orderly regulations incumbent upon normal cells and proceed in their destructive course. The initiating factor in this change is no longer essential to their continued growth and activity, and their propensity for banditry becomes a fixed characteristic which is transmitted to all their progeny. Ultimately, then, it appears that there are many substances within and without the body capable of furnishing the impetus to cell mutation, and to date practically all efforts have been directed toward the identification of those agents which are responsible for provoking these changes. The evidence of an hereditary willingness on the part of certain cells to partake in a destructive campaign of unrestricted growth does not differ, essentially, from individuals as a whole, and is perfectly compatible with the history of the world and all it contains. Such studies and experiments have produced a wealth of material revolving around the problem of cancer production, but they have not supplied the answer to the question of why these changes occur. Perhaps the approach might be altered in the determination of the factors responsible for normal cell growth and activity, and in this manner a measure may be found to control the subversive activities of the gangster cells.

EARLY SYMPTOMS AND SIGNS OF CANCER OF THE UTERUS*

JOHN F. HABERMEL, M.D.
NEW ALBANY, INDIANA

It is my intention to emphasize the early symptoms and signs concerned in the early discovery of cancer of the uterus. The hope of successful treatment of cancer depends upon an early diagnosis while the disease is still local.

Between the ages of 45 and 65, one out of every five deaths among women is due to cancer. The organs most commonly involved are the uterus and the breast. Cancer can be easily recognized in its early stage in many regions of the body but the discovery of early cancer of the uterus proves to be a real problem. Statistics reveal that only 5% of cervical cancer patients are found in the early stages. This is a rather appalling and discouraging situation in that we get little opportunity of observing its very first beginning. Analyses disclose the reasons for the delay in failing to secure early medical advice to be, first, the patient may be responsible and through fear or false pride fails to submit to examination or is ignorant of the significance of menstrual disorders; second, the interstitial type of cancer may involve the broad ligament before it reaches the endometrial cavity producing neither symptoms nor signs until the disease is far advanced; and, third, though rare, the physician may not have attempted examination or failed to recognize the nature of the lesion.

Lesions recognized as precursors of malignant transformation are referred to as "pre" or "pro" cancerous lesions. Such a lesion undoubtedly exists in the cervix for it is rare to find a cancer in a nulliparous, noninfected cervix. The question whether chronic infection, glandular hyperplasia or scar formation is the chief factor favoring cancer is debatable. A lacerated and eroded cervix offers a fertile field. The removal of such non-malignant lesions is advisable as a measure of prophylaxis with regard to cancer of the uterus. During the child-bearing age, a thorough cauterization will be followed by relief of the symptoms and commonly a cure; after menopause, some kind of cervical excision seems the better procedure.

In some conditions associated with hemorrhage from the uterus, perverted ovarian function often plays a part equal to or even greater than the organic lesion within the uterus. Uterine cancer is a vascular tumor, it spreads wildly, it soon outgrows its source of nourishment, its cells become necrotic, sloughs at intervals, and are cast off as minute or gross cells which in turn gives rise to bleeding and discharge. During the early stage cancer is not a painful tumor nor is the discharge foul smelling until great death of the tissue and secondary infection occur. There is but one subjective clinical manifestation of significance, viz., abnormal bleeding from the vagina as characterized by blood-tinged discharge or active bleeding between menstrual periods or a recurrence of menstrual bleeding after the menopause. Profuse or prolonged bleeding at regular monthly intervals with freedom from staining between the periods is usually due to a benign lesion. Bleeding between periods, irregular in amount, in duration and in appearance is suggestive of malignancy.

Bleeding from the vagina after one or more years of post-menopausal amenorrhea demands thorough examination. The exact source must be determined. I prefer to make an examination at the time of bleeding. Commonly, the vagina may be the source of the bleeding and the lesion responsible is often a benign one. If the bleeding is from the uterus, cancer of the fundus must be either confirmed or denied. On discovering a benign lesion, it does not warrant security in the thought that fundal cancer is not present, for a benign and a malignant lesion are often coincident. Normally the endometrium of an atrophied senile uterus should not bleed much, if at all, on slight injury but if cancer is present even the gentlest manipulation will produce active oozing of bright red blood. The introduction of a sound within the uterus is used by some surgeons as a clinical test but final diagnosis should not be based upon it.

The only sure method for exact diagnosis is curettement with microscopical examination of the curettings. Some surgeons object to curettement, maintaining the objection that cancer cells are disseminated. It seems logical that such an objection is more theoretical than practical, for many patients might be subjected to needless operations by advocates of this belief.

Advanced cancer is self-evident and easily diagnosed and is not included in the province of this paper. Early cancer of the uterus must be differentiated from the benign. This may tax the resources of the surgeon. Certain facts are of importance in helping solve the problem. Usually a benign cervical erosion does not give the symptoms of metorrhagia, but intermenstrual bleeding is characteristic of cancer. Cervical erosion is due to hyperplasia of glandular epithelium and is not a process of ulceration; therefore, the smoothness, the firmness, and the sharply outlined erosion against the squamous epithelium of the portio is readily recognized. Erosion rests upon a base of normal cervical consistency. In contrast, cancer is irregular in outline, ulcerative and proliferative of the surface, has indurated edges and base, and possesses a friability as shown by the free bleeding following trauma of examination. In very early cancer, such findings may be obscure enough to hinder a diag-

* Presented before the Floyd County Medical Society at St. Edwards Hospital at New Albany, January 14, 1941.

nosis. In this case, an excision of the suspicious area and biopsy should be performed.

In conclusion, the profession should impress the women with the meaning of the abnormality of intermenstrual and post-menopausal bleeding so that they will seek early medical advice, and we, the medical profession, should spare no effort to prove or disprove the presence of cancer; then will the death toll from cancer of the uterus be further reduced.

ABSTRACT

INCREASING FITNESS OF PILOTS CAN AVERT MANY PLANE CRASHES

"In my opinion over 50 per cent of the crashes in aviation can be attributed to the pilot, and generally poor judgment on the part of the pilot will cover many mishaps," Frederick Ceres, M.D., Captain, Medical Corps, United States Navy, Pensacola, Fla., declares in an article on "Aviation Medicine in the United States Navy," in the first issue of the new bimonthly publication, *War Medicine*.

"It is my belief that high physical and mental fitness will produce an alert, clear mind and quick reactions," the Captain continues by way of explanation of his declaration that one of the most important functions of the Aviation Medical Section in the Medical Department of the Navy is the maintenance at a high level of physical fitness of naval aviators.

He says that "the primary mission of the Aviation Medical Section of the United States Navy is to keep as many aviators flying, in as many airplanes as are available as many days as possible. This is aviation medicine."

An Aviation Medical Section in the Medical Department of the Navy was established in 1921, the Captain says, in describing the background of aviation medicine in the Navy. The Navy continued to send its student flight surgeons to the United States Army school of aviation medicine for basic instruction up to and including 1939. In view of the magnitude of the aeronautic program now being inaugurated a greater number of medical officers had to be trained in aviation to meet the increased needs of the Navy, and in July, 1940, a School of Aviation Medicine was established at the Naval Air Station, Pensacola, Florida.

In discussing the training that is given a medical officer for the designation of flight surgeon, Captain Ceres says that it is divided into three phases: academic phase of eight weeks in the lecture and examining room; flying phase of eight weeks of flight indoctrination and training in primary flight training with the purpose of "soloing" aircraft, and operating phase of six to eight weeks of practical training at the Main Station or at Corry or Saufley Field. The aviation medical examiner has the same training as the flight surgeon except that he does not receive actual flight training as an aviator in actual control of aircraft.

The selection of medical officers for flight duties requires unusually careful consideration, the Captain says, explaining that it is believed that not every medical officer can adapt himself to the practice of this medical science in which he is required to fly and expose himself to the same extrahazardous performance of duty as is required of naval aviators. He must have the urge or enthusiasm for flying and certainly should volunteer for this assignment. He should have a personality that will suit him for this type of duty, because he will live with the young fliers and learn to speak their flying language. He performs a large part of his duties after flying hours in the observation of his personnel. He will learn the temperamental qualities of his fliers and arrive at some definite conclusions as to their normal lines of behavior. Staleness or fatigue of an aviator is recognized in its early stages only by a change from the normal line of behavior and conduct. The early recognition of this condition will prevent accidents and save loss of life and Government property. "Truly, there is no other field of military service in which so much attention is given to the care and observation of personnel as in aviation," the Captain declares.

"It is most important that the physical fitness of naval aviators be kept at a high standard," he says. "This can best be done by the use of proper exercise. It is apparent that good physical condition of a flier should generally produce good judgment, self confidence and mental alertness, which are necessary attributes for safe flying. Attention, observation, clear judgment and sound memory are becoming more and more important in the prevention of airplane crashes.

"Airplane accidents will continue to happen. However, attempts by the flight surgeon and others are constantly being directed toward reducing crashes. The flight surgeon studies and analyzes each airplane crash. Sometimes accidents are unexplainable. It is suspected, however, that in many cases heart failures, perforated peptic ulcers, renal stones, epileptic seizures or other acute conditions may constitute a contributing factor.

"As a result of a study for some years crash-contributing factors have been established, listed and evaluated. The majority of these factors in naval aviation accidents may be classified as follows: (1) fault of the pilot, (2) field or terminal, (3) power plant, (4) structural failure, (5) weather conditions, (6) collision in air, (7) flight deck of carrier, (8) fire, (9) night flight training, (10) catapult, (11) faulty design, (12) passenger interference and (13) arresting gear."

Among the important medical problems in aviation, the Captain says, is that of the question of the various factors involved in altitude limitations. He says that even though sufficient oxygen is provided to the aviators, there is a critical point around 45,000 feet where life is endangered.

As an example of what is already being uncovered in the way of aviation medical problems by the present war, he says that reports are being received from certain European belligerents that fairly large numbers of pilots are being incapacitated for weeks and sometimes months after flights above 30,000 feet. "The condition is probably not the direct result of failure of adequate oxygen supply," the Captain says. "There are many symptoms and other features which make it very likely that the cause is air embolism, or 'bends' which is the familiar name in diving operations."

The seriousness of anoxemia is emphasized by the Captain's statement that its symptoms are of such a nature that the person is unaware of his precarious condition and may suddenly lapse into a state of unconsciousness. "The nervous system," he says, "is the most sensitive to the lack of oxygen. Physiologists have stated that brain tissue cannot be revived after eight minutes of oxygen want."

Among some of the other problems aviation medicine has to contend with are what is commonly known as "staleness," which comes under some form of fatigue or neurosis, and the effect of speed on the body. The latter question, the Captain says, is still unsettled.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Mrs. J. S. Skobba, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943

APRIL, 1941

Editorials

INDUSTRIAL HEALTH

The problem of what to do about industrial health, which is receiving much attention at the hands of all medical organizations from the component county medical societies on up to the parent body, the American Medical Association, assumes new proportions of great magnitude now that the whole nation is engaged in a stupendous preparedness program. It is a rather new concept in the field of preventive medicine; it is a subject that has been more or less discussed in many quarters in past years, but until a comparatively short time ago no concrete attack had been made.

The Journal herewith presents a special number devoted to the subject of industrial medicine which, of course, means industrial health. We have endeavored briefly to cover the field and to present the views of the various groups immediately concerned with the problem, both from the lay and the professional viewpoints. When the various contributors were invited to present their views and opinions, it was made clear that articles published in the scientific section of The Journal do not necessarily reflect the opinions of the editorial staff of The Journal or that the staff endorses such opinions; contributors were invited to "have their say," and each was chosen because of his standing in the particular group which he represents, and because it was believed that his comment would be authoritative.

As we have said, industrial health has assumed new proportions; it is to play a most important role in the national preparedness program. It has been correctly said that "the war-time needs of the country must be adjusted to take care of: (a) the civilian population, (b) the workers in essential war industries, and (c) the armed forces." This, then, is the triad upon which we must build if we are to carry our part of the load.

After all, the county medical society is the foundation upon which the whole plan must rest; the state and national medical groups may plan and make pronouncements, but it is the individual physician, cooperating with his confreres in his own community, on whom we must depend to carry out these plans. This means organization, and by that term we mean that we, too, must be prepared.

As has so often been said, no mortal man knows what we are facing—whether this is the beginning of a plan of national defense that will be carried on for generations to come, or whether it begins the carrying out of a program with a view to participating in the greatest, world-wide holocaust since the Flood. We must, then, be prepared to care for the at-home population, the worker in our industries, and the armed forces.

So it is that we all are vitally concerned with the subjects presented in this special number. There can be no sluggards; sooner or later, every able medical man will be called upon to do *something*, either at home, in the mills and shops, or (and again we say, God forbid!) in the midst of a defense of his nation against the mad men of another continent. The health of these three groups is our present concern, and especially those engaged in the more essential industries; it is this duty that we now face.

Already many of our states have enacted amendments which bring industrial diseases within the purview of their compensation laws which brings an added duty to our profession, that of being able intelligently and authoritatively to affirm that this or that disease does or does not arise out of and during the course of the victim's employment. It means further that those of us engaged as plant physicians must render every assistance to the end that such diseases are eliminated from the industrial picture.

A great task is before American Medicine and before Hoosier Medicine; it is a problem that has a solution and it is our firm belief that the medical profession of the country will provide the answer.

CANCER

In this issue of The Journal will be found a splendid general article on cancer. This disease ranks second in the list of causes of deaths in the United States; in Indiana it ranks third. Unfortunately, we do not as yet know its cause, and until this is understood our treatment must be termed empirical. However, we need not become discouraged in our efforts to prevent, arrest and cure this

dreaded disease, for enough is known concerning its behavior to draw certain definite conclusions. A few of these should be emphasized:

1. Cancer is found to be most prevalent in the cervix uteri, breast, stomach, and colon. These organs must be carefully examined periodically, especially in patients over forty years of age, although younger people are not free from the disease.

2. Examinations are not complete without biopsy in suspicious cases. A small piece of tissue may be easily removed from the cervix, and in the uterus biopsy tissue is readily obtained by careful diagnostic curettage. Lumps in the breast are common in women past forty and usually are due to cystiferous or mazoplastic changes. Although cancer is said to be no more common in breasts with socalled chronic cystic mastitis, yet early carcinoma is more difficult to detect in such breasts because of the presence of many small nodules. Consequently, the physician should make a careful chart of the position of these lumps and the patient should be observed at frequent intervals. If a small mass under observation does not disappear, or if it should be found to have enlarged, then biopsy must be done. The diagnosis of cancer of the stomach can be made only by x-ray examination and, even with that aid, a small defect may be erroneously called an ulcer. Therefore, medical management should not be prolonged; the surgeon must remove the ulcer for frozen section and study, and he must be guided in a great measure by the pathologist's advice. Bowel dysfunction or bleeding demands first a digital examination and then barium enema and proctoscopy.

3. A well-trained pathologist is indispensable in the diagnosis and treatment of cancer.

4. The general practitioner must be on his guard for abnormal painless lumps and sores, for abnormal bleeding or discharge, and for persistent gastrointestinal dysfunction.

5. The radiologist is necessary not only in determining the diagnosis but also in providing proper treatment. This is especially true in cancer of the cervix, skin, and mouth where radium and x-ray can frequently accomplish more than surgery.

6. The surgeon must continue to be radical if he is to succeed, for no operation will be half so mutilating as the unchecked disease, but it is well to remember that his hands are tied if distant metastasis already has occurred. The need for early recognition is apparent.

There must be the utmost cooperation between the general practitioner, the radiologist, the pathologist, and the surgeon in the early diagnosis and treatment of cancer if cures are to be attained.

RITHOLZ RIDES AGAIN

In The Journal for April, 1937, appeared an editorial, "Chain Stores," dealing with the Ritholz chain of optical stores, in some communities operated under the title of "National Optical Stores." This comment had to do with the experiences of a Gary physician, not a member of his local medical society, in a Fort Wayne store operated by this concern. It was stated that the weekly remuneration of this physician was the princely sum of twenty-five dollars, plus a commission that might accrue under certain circumstances.

This physician went into details regarding his short stay in Fort Wayne, relating among other things that the lease for the offices occupied was to be taken out in his name. The local Better Business Bureau, aided by a local newspaper and by a resident member of the Indiana State Board of Medical Registration and Examination, soon quieted the aspirations of the budding ophthalmologist, and he returned to Gary. When asked about his qualifications as a refractionist, he stated they were nil, except for what he had learned some twenty-five years before from hearing a medical college teacher give one lecture on the subject.

The Journal for October, 1937, carried an editorial, "Chain Store Opticians," in which was related a personal experience in calling on the manager of the store operated by Ritholz in Indianapolis, the store being located in the Claypool Hotel building and operated under the name National Optical Stores. We made this visit following the receipt of a post card which stated, "Wanted: Indiana licensed physician; full time proposition; salary forty dollars per week."

The interview made it quite clear that the concern was not interested as to the qualifications of the applicant; what they wanted was a *licensed physician* to take over the refractions in their Hammond store. The manager told us that, regardless of experience, they would have their Chicago "expert medical doctor" come down for a day and that he would teach the applicant *all they wanted him to know* in that time.

By this time, however, the weekly stipend had been hiked to fifty dollars, and before the interview ended we had been offered ten dollars more.

The February fifteenth issue of *The Journal of the American Medical Association* contains an illuminating editorial, "Physicians Offered a Deal," which has to do with the further operations of the Ritholz outfit, especially in Indiana. It is stated that various Indiana physicians have received postal cards which state: "I would like to enter into an arrangement with you, requiring your full time service away from your office. Attractive opportunity and fine remuneration. Office space is provided. This is a permanent arrangement. The proposition is in Lafayette, Indiana. If you are interested, wire collect, giving your phone number,

so that I can call you." The card was signed by J. Bedno, 206 Main street, Lafayette, Indiana.

A similar card, stating that the "proposition" is in Anderson, Indiana, and signed by one B. Sherman, also came into our hands. The *J. A. M. A.* editorial gives a rather comprehensive sketch of the operations of the Ritholz crowd, much of which deals with the various federal fraud orders which have been issued against them, including those stopping their mail order glasses and mail order denture ventures.

We have seen a dozen or more postal cards similar to those cited above, all received by Indiana physicians, and we have been struck by the observation that each of the recipients was more than sixty years of age. The reason for choosing this age group must be obvious.

What should be done about this indecent mess? What *can* be done about it? The answer to both questions is the same—it *can* be stopped, it *should* be stopped. The higher courts of our state have held that when a regularly licensed physician stoops to such unwholesome practices, aiding and abetting a law violation, then that physician is in jeopardy to the extent that his license may be revoked. Our understanding is that the optometry law provides that such things as chain store optical shops, employing licensed optometrists, are without the law; hence it probably is for this reason that the Ritholz outfit seeks the services of licensed *physicians*.

Just now we are noting the results of a carefully planned campaign against the irregularities of a group of regularly licensed practitioners of the healing arts, conducted by the Indianapolis Better Business Bureau. The press of the state has given their support to this campaign; even a semi-lethargic medical profession is being informed that by dint of a little investigation these enemies of public health can be restrained.

There is not the slightest excuse for any group to come into our state and, by the prostitution of elderly members of the medical profession, carry on their nefarious practices. The revocation of the licenses of one or two will stop these law evasions in very short order.

THE BOOK REVIEWER'S PAGE

The book reviewer's page is a place to tell about books. It discusses, describes and reviews the innards of books. It deals with new books, up and coming books, famous and established books, tiresome books, useless books, and entertaining books. Its purpose and ideal is to help the man in busy practice to make worthwhile selections for his library.

All publications listed and reviewed in The Journal's book pages are studied carefully. Impressions, prejudices, opinions, recommendations, and rejections are duly recorded. From the setting down of these comments, one may discern that books may be put into several categories and this means that a book does not belong wholly in one classification, but may be related to all or several. These groupings are not sharply limited, but rather merge, diverge, and dove-tail with one another.

First, one must have books of the "bread and butter" kind. In these, when in a great hurry, we find that there is told simply and clearly what to do and how to do it. Time is short, the occasion is demanding, and it is necessary to get it down in a "1-2-3" fashion. There are such books, but they require a patiently discerning eye to find them. They are not merely compilations of who thought what should be done, what motions one must go through, but are decidely the pure and distilled accumulations of broad, applied, clinical experience. The men who write these treatises *know* from long and diligent contact with all kinds of severe illness; daily, their resources have been increased, their courage becomes greater, their achievements are many and impressive. To them is owed a debt impossible of liquidation. They are the masters who leave enduring heritages behind them.

Second, comes the book which would emphasize more the principles than the merely active practice of medicine. They are usually large and impressive tomes and often possess fancy titles. One might look at them repeatedly in great awe—but one leaves the pages unread. This should not be, for the practitioner needs to know a great deal about, for example, the physiologic, the pathophysiologic background of a disease, as well as to know how to diagnose and treat it. For that, he is a better doctor rather than just a good one. Otherwise, without this more leisurely and supplementary reading, one becomes but a technician, a person of motions and gestures; one gets to be as a jerking and bobbing automaton instead of a mindful and understanding human being. Good books in this class make diseases appear as vivid and entrancing dramas, makes more of them than just mere collections and miscellanies of symptoms and signs. The physician in his reading ought to acquire and retain a mighty respect for the complexity and beauty of the disturbances of the physiologic machinery in disease, he should appreciate the restorative and restitutive process, and finally he should be deeply impressed with this thing called life with which he is always dealing.

Third, there are the very-little-read and yet important books. Through these, one enters new and virginal places, proceeds into very academic items, and indulges in orgies of speculation. They are highfalutin'. Their authors have abandoned, temporarily or permanently, the mundane routines, and ascended straightway into high, unworldly, and gusty regions where the clouds form the floor. They do their imagining aloud and in print. While

for the busy man these publications may not have much appeal, nevertheless they do have a place, because they are the trail blazers of tomorrow in medicine. Some such writers have shown what amounts to a super-human intuition, whereas others just dispense mere moonshine. Certainly, such a book may be read for just pure enjoyment.

A book might be any, all, or any combination of the above categories, but, above all, a book must be useful.

The publications are numerous, so much so that there appears to be almost a continous avalanche; yet there are only a few which are sufficiently meritorious to deserve a place on the bookshelf. One must have always in mind the busy, the harassed, the burdened and the tired doctor who is always on the firing line. Like the infantryman, he cannot review past glories, indulge in deliberate speculations, formulate fancy theories; he must have a few simple, direct items in front of him at each moment. Books should be simple and direct. They should contain a minimum of irrelevant detail and confusing material. What would it profit a man to read a book on the treatment of syphilis, where there is given a hodge-podge compilation of 25 kinds of treatment, and then not be clear in his mind as to know how to use any one? A book of that kind has no right to exist.

The book reviewer's page in The Journal intends to do no more nor less than bring out the merits and the demerits of books. If books are worth recommending, the task of reviewing is easy; one must also be straightforward in rejecting the unworthy books. Some of the more recent books need help, as they need yet to develop and grow; for them the obstetrician and pediatrician is the receiver. Some have no right to exist and should be helped to die gracefully before connected expense and tragedy is too great; for them, the pathologist and mortician. For still others, established and really not in much need of comment, a renewal of friendships. Many mistakes will be made and the reviewer's page begs the same charitable attitude as was extended a hapless musician in a tough dance-hall-saloon in the once Wild and Wooly West: "Don't shoot the piano player, boys —he's trying his best."

In the eyes of their people and themselves, doctors stand out as persons who love books. They like to look at sleek bindings, smell the glue, stroke the pages, glance at illustrations—and, by chance, even read them.

The tomes, the volumes, and the papers in the doctor's library should show evidence of use; there should be thumb marks, dog-ears, smudges. They are the peculiar and steadfast friends of the medical man; if properly selected, they are his advisors, his best and fairest critics, his companions. A book may be opened hurriedly to a page; one must find something quickly; a chapter of its innards may be perused—one wants to know and understand.

It is a wretched night outside; the rain beats against the window panes. Inside, there is an easy chair, a pair of slippers, a pipe, warmth, a man with a book—enjoyment.

(Editor's Note: The above communication was sent in by one of our members, a physician who reads extensively and knows his books. He prefers to remain anonymous, but we believe the comment is of more than usual interest to our folk; hence it is presented in the editorial columns.)

Editorial Notes

When we learn that a blind United States Senator paid the "I Am" cult a little matter of one thousand dollars with the expectation that this payment would insure the restoration of his vision, well—we just wonder!

The State of Connecticut issues motor license plates bearing the designation "M. D." The usual numerals are added to this title. Sounds like a good idea, in many ways.

Another state medical magazine has adopted color for its front page. The March number of the *Connecticut State Medical Journal* shows up with a rather brilliant red on its front cover, the wide red stripe bearing a small black border. It is very good looking, too.

It is reported that during the first six months of operation of the "blood bank" by the Indiana University Medical Center more than 1,200 bottles of blood or blood plasma have been distributed. This means that more than 1,000 blood transfusions have been made through the facilities of this "bank."

The Muncie Board of Health, long considered one of the outstanding city boards of health in Indiana, is now issuing a *Health Bulletin*. Dr. Hugh A. Cowing, of Muncie, long-time member and once president of the Indiana State Board of Health, has occupied a similar position in his home city for many years.

The Indianapolis Methodist hospital finds itself hard pressed to accommodate all who wish to avail themselves of hospital accommodations, so super-

intendent Dr. John G. Benson proposes hospital "barracks" to handle the overflow. He suggests that the federal government might be induced to shoulder a part of the expense necessary to carry out such a plan.

Brunsting, writing in *Minnesota Medicine* for March under the title, "Dermatitis Medicamentosa," presents a most comprehensive study of the eruption following the use of many drugs. He not only describes the nature of the reaction, but names the skin condition which the reaction most nearly resembles.

We've just lost our medical "buddy," a man with whom we have been most intimately associated for almost thirty-seven years. An automobile, an icy pavement, a skid into a truck—and two lives instantly snapped out! We have but the memory of this man among men; a good doctor, an outstanding citizen, probably our best friend—now he is gone; gone, as so many others have gone, due to an automotive accident. So, as so often has been said, "This is Life!"

Our draft boards, both local and advisory, are now receiving their just due in the form of merited praise for the manner in which they are carrying on. Early in the program there was some criticism as to the manner in which the examinations were made and it was charged that there were too many rejections. Now that the program is well under way, the medical unit is functioning in a manner much to the liking of the "higher ups," who are becoming lavish in their favorable comments.

Again we remind our readers of the A.M.A. meeting in Cleveland, June 2-6, 1941, and that it is important that those who plan to attend should become Fellows of the American Medical Association. While it is, of course, possible to attend many of the events of the week, none but Fellows can register for the full program. Every member of the Indiana State Medical Association is eligible for fellowship in the parent organization; every member owes it to organized medicine to become a Fellow. Ask your county society secretary for an application blank.

Kaufman, in the *Ohio State Medical Journal* for March, reports a novel yet effective method of removal of powder burns in the skin about the face. He used a small burr, attached to a dental engine, pressing the revolving burr against the skin under which the powder mark was buried. He states that the revolving action forced the powder mark to the surface, where it was removed. The areas thus treated were painted with tincture of metaphen and a dressing applied; healing occurred within three weeks, and there was no scar tissue.

Sir Frederick Banting, co-discoverer of insulin, was killed in February in an airplane accident in the snowy wastes of Newfoundland. The plane had set out for England, where Dr. Banting was to engage in some sort of secret war mission. Thus came to an untimely end the life of a man who had done much to solve the problem of diabetes. Thousands upon thousands of folks owe their present existence to his discovery of insulin for, prior to that time, the diabetic was doomed to early death.

The Army Medical Library has sent out a request for reprints of medical and surgical articles, to which we urge our members to respond. This library is rapidly becoming one of the best in the country and in time promises to be able to supply information on almost any medical subject. Nor should one overlook the Army Medical Museum, when one comes across specimens of unusual interest. The laboratory equipment and personnel is of the highest order and, in addition, the laboratory makes a practice of submitting sections to pathologists of note throughout the country, so that they, too, may unite in the making of a final diagnosis.

The American Social Hygiene Association very properly recommends that appropriate recreational facilities be provided immediately adjacent to the camps where civilian trainees are located. The recommendation is based on the theory that these young men will seek some sort of diversion in their periods of "off duty," and that such facilities will do much to keep down the incidence of venereal disease among this group. As the Peru *Tribune* so aptly points out, "Men in barracks are no more plaster saints than they were in Kipling's day. Released from heavy army duties, they will have fun; and if opportunities for decent, wholesome fun are lacking, they will seek whatever kind is available."

Among the numerous bills that "lost their way" during the recent session of the General Assembly, and a bill that had much merit, was one providing that dog owners should be liable for injuries inflicted by their pets. So the postman, the delivery boy, the newspaper carrier, etc., will continue to pay for treatment due to bites from these animals. It is true that the local postmaster has authority

to discontinue the delivery of mail to the home harboring a vicious dog, but such a measure affords little protection to others. The township trustee is authorized to pay for the destruction of sheep, hogs, chickens, etc., but it seems that when a dog bites a man, that is another story.

The medical press is of one accord in the recommendation that medical students' deferment from the draft is imperative. The preparedness program goes on apace and with its rapid progress there is an ever-increasing demand for more doctors for service. It also is vitally necessary that our industries be manned and that the "home folk" have the right to expect their usual high degree of medical attention. What, then, are we to do if our medical student group is severely curtailed, as it would be if these young men are called for training? We recommend that our medical societies make this a special order of business and see to it that the matter is brought to the attention of the proper persons in such a manner as to assure the continuance of our medical education program.

We talk quite a bit about the accomplishments of Indiana folk; we speak of their prowess as authors, as farmers, etc., but we say little about their talents in artistic fields. The recent Hoosier Salon, held annually in Chicago, brings to mind the fact that Indiana has numerous artists of no mean ability. The visitor to Brown County and to other southern Indiana points, as well as to the Dune regions of northwestern Hoosierland, will meet many artists at work. It is to be hoped that in the near future Indiana will have the honor of holding this annual Hoosier Salon within the borders of our own state—an exhibit by and for Indianans.

The work of the National Physicians Committee is bearing fruit in many ways, not the least important of which is the ever-increasing number of lay publications which are awakening to the importance of the preservation of our present system of medical practice. Among the publications which recently have had something to say (and they have said it well) on this subject, are the *Industrial News Review*, and the *Middletown Transcript*. The latter paper carries an excellent editorial, "Warriors Against Disease," which we like very much. Among other informative statements we find this paragraph, "Medicine is not an industry. But, like industry, it has rendered its greatest service to the people under a system which places no brakes upon the achievements of the individual and which encourages any man, in any field, to develop his talents to the utmost."

Authentic reports are to the effect that even though the hurry-up method of obtaining marriage licenses within our borders has been curtailed to a high degree, the fact remains that subterfuges, evasions and what amounts to open violations of the purpose and intent of the law are being practised. There is but one solution to this problem; any member of organized medicine who joins in such unholy, indecent measures should be forthwith and permanently disconnected from all reputable medical organizations. All our bordering states now require serological examinations, which *presumes* a reasonable waiting period, so it is to be expected that various evasions of the law will be attempted. This cannot be done without the connivance of a *physician and a laboratory*.

During a recent weekend we had occasion to travel over a goodly portion of our state and in those travels we noted a sure sign of spring, definite evidences of fishin' fever as shown by the number of people, youngsters and grownups alike, who were gathered on various bridges about the state, there to look for the finny tribe in the waters below. We noted this evidence in such streams as the Iroquois, the Wabash, the White, the Flat Rock, the Muscatatuck and numerous other rivers, while the smaller streams, commonly known as creeks, such as the Brandywine, Wild Cat and other similar and fanciful names, each had their due proportion of wistful watchers. Probably the greatest number were congregated on a bridge spanning the Tippecanoe river, just west of Delphi. Here there were dozens of folk, men and boys, together with a "sprinkling" of women folk, all watching the "riffles" that are so common in that stream. These "riffles," by the way, used to furnish the best fishing, back in our youthful days. All of which is positive evidence that "it won't be long, now!"

It's about time to begin making your plans for the annual convention of the Indiana State Medical Association, to be held in Indianapolis next September. Better mark that calendar right now, then address your favorite hotel, asking for that room you and the Missus always have liked best. Nothing like being comfortable on an occasion when there is so much doing that you are "done in" when it comes time to turn in for what is left of the night. We might add a bit of advice, similar to that proffered by the country newspapers back in our days down in Wild Cat. In talking about the annual visit to the county fairs of the neighborhood, the editors were unanimous in advising their readers not to wear new shoes to the "doings," but to put on the old ones. Which reminds us that new shoes in those days were properly reserved for the elders and the deacons of churches,

that said new shoes might do the proper amount of squeaking as these officers moved about the church in the performance of their duties. Just make yourself comfortable; leave it to the young set to "dog it."

We're all set to begin operations on our lawn, getting it ready for the summer season. And again we are reminded by the better class of seedmen that "all is not gold that glitters," when thinking of grass seed. The average John and Mrs. John Hoosier seem not to be aware that grass seed sold within the borders of this state, in packages of one pound or more, must bear an analysis tag from the Department of Agriculture of Purdue University. You are entitled to know just what you are buying when you ask for lawn seed, and the dealer is supposed to show the green or red tag on which is printed the results of such analysis. We haven't as yet checked up on these tags for 1941, but we do recall that a limited survey made last year revealed that some grass seed, labeled as being of a high quality, showed among other noxious content, 1.490 buckhorn seeds to the pound. In addition to this information, we noted that the germination was as low as seventy percent and that the inert matter, meaning chaff and dust, amounted to something like twenty percent. Then, too, there were plantain seeds galore, along with the seeds of other weeds we do not like to have in our lawn. Before you buy your grass seed, ask to see that analysis; it will tell you some interesting tales!

A letter was received at headquarters recently from an Indiana physician, a member of the Reserve Corps now stationed in one of the army training camps. He found considerable fault with conditions existing there and among his complaints was one to the effect that medical men are not immediately assigned to medical duties, etc. The letter was referred to the M-Day committee and their reply in part is as follows:

"Attention is invited to what we deem extenuating circumstances which it may be expedient to consider in connection with the facts. The nation is engaged in a stupendous undertaking—one almost unparalleled in its history. It is of such magnitude that its objectives can not come to fruition overnight. Of necessity there is delay, duplication of effort, and lost motion.

"Thinking of the preparedness program in the light of a blue-print, to be conceived, adopted, and put into execution, it becomes an evolutionary process to be accomplished step by step. Our perspective, then, must go beyond the individual and the individual group.

"The strength of the Regular Army and National Guard must be increased; many kinds of units, some of them entirely new, organized and distributed over widely remote areas and far-flung bases; some are to become training cadres into which will be absorbed trainee contingents to the number of 800,000 a year for five years.

"We must think in terms of facilities to be provided for all this: billeting and housing, feeding, supplying, transportation and storage, hospital provision, and the accommodating of the various branches and arms of the service to the needs of the moment. Army units must be manned with trained personnel in advance of the induction of the trainee contingent.

"When we consider that the composition, organization, tactical and administrative aspects of the army are so complicated and complex as to be almost beyond the ability of a single mind to comprehend, we can in some small measure appreciate that much marking of time is necessary before full stride of the program is reached. We are constrained to believe that after all it is in the hands of capable leaders who have given the best part of their lives to the service of our armed forces, and that in the end we shall have reason to conclude this leadership will not be found wanting.

"There is one other thought: We have been particularly impressed by the temerity of some physicians who would condescend to enter the service of their country if they could be given on entrance the grade of major or lieutenant-colonel. Such a puerile suggestion would be amusing if it were not tragic. Those not conversant with what responsibility an officer of field grade carries do not realize that there must be a reason why an officer devotes 20-25 years of intensive study and service before he is considered equal to the task of a major, lieutenant-colonel and colonel; that such an officer must have technical, tactical, and administrative knowledge which can come only from years of experience; that the further up in rank a medical officer gets the farther he is likely to be from the professional side. The knowledge of how a medical unit functions can come only with the knowledge of the tactical and operative functions of the units which the medical unit is to serve. This serves to illustrate how futile it is to attempt to discuss such problems with younger men of the profession who are pleased to observe that all the training a medical officer needs can be had within a period of six weeks. It is a good deal like the young West Point graduate who feels he should be started off with the grade of major. If that were feasible, why would the War Department waste 20-25 years of an officer's time and so much money in qualifying young officers. It is a long way from a subaltern to a general officer and a very expensive journey. Let us keep our proper perspective."

President's Page

Dear Doctor:

I attended one session of the legislature which just ended. The procedure was very interesting. I was impressed by one fact, and that was the lack of doctors in the House and the Senate. If the doctors are going to protect the public welfare, they will have to sacrifice something and run for the legislature. The doctors must not stay at home and permit others to do what they should be doing. A doctor can and must be an individual, but he can not be selfish.

Too many people seem to think that they know how to run the practice of medicine. They seem to think that the doctor needs their help in this important work. Those who are endeavoring to guide the doctor are untrained and know little about the practice of medicine. This includes many doctors who have always had a job and who have never done any private practice.

Somebody, I don't know who, is trying to make inroads into the practice of medicine. There is the Wagner bill, the Epstein bill, the Defense Commission, the Public Health Service, and the discussion of the League of Women Voters, all taking place under the guise of national defense. If this somebody has his way, he will ruin the place of the medical profession in national defense. Doctors are doing everything to aid in national defense from the standpoint of medicine. Why are the doctors, who are properly trained to do the work, not let alone so that they can do the job in the best possible manner?

It is your job and my job to keep ever alert to all that is happening so that when we are called upon we are prepared to do the best possible for the health of the public.

Very truly yours,

LEGISLATIVE MATTERS — FINAL REPORT

"No runs, no hits, no errors," is just about the box score for the eighty-second session of the legislature which closed March 10, as far as the medical profession of Indiana is concerned.

The two bills actively backed by the Indiana State Medical Association—the State Board of Health reorganization measure, and the University Hospitals commitment bill—both failed to pass. After passing the Senate in good style, chiropractors, optometrists and food handlers were placed on the board and thus so entangled the health board reorganization bill that your state legislative committee thought it much better to let it die in conference committee rather than allow it to go to the Governor with these objectionable House amendments. The hospital commitment bill, which was drawn to give judges specific right to commit their cases to their local hospitals as well as to the State University Hospitals, was introduced, rewritten in committee, and although ready for third reading and final passage in the House for fifteen days previous to the end of the session, it was not handed down by the speaker and died with some 500 other House bills. In addition to the opposition developed in the committee against the bill as originally drawn, it received criticism from at least one local county medical society.

Study on Commitment Problem

Your state legislative committee feels that this entire question of the care of the medically indigent should be the subject of a study, and a definite legislative program should be presented at the next session of the legislature to clear up the inequities of the present system. Valuable work along this line already has been done by the Medical Relief Committee of the state medical association, which committee has had many conferences and contacts with the Township Trustees Association and the Indiana Hospital Association.

Cult Bills Fail

On the other hand the profession held the cultists all along the line, although the chiropractors, naturopaths, "physical therapists" and massatherapists put up the most strenuous campaign in recent years to set up separate boards and lower the standards of medical practice. The battle on House Bill 129, the chiropractic measure, was bitter. Had not the local societies been on the job, the results might well have been different.

Your committee suggests that your society take proper action thanking your representative if he voted to uphold medical standards and opposed this bill.

House Bill 129

The chiropractic bill, House Bill 129, failed to pass on third reading Friday, February 28, 33 to 48. The principal speakers for the bill were: Herbert H. Evans, Newcastle (Henry), and Burt Summerland, Wabash (Wabash).

Those who spoke against the bill and in favor of the physicians were: R. H. Richards, M.D., Patricksburg (Owen and Putnam); Joseph Cubby, Terre Haute (Vigo); Frank J. Evans, Noblesville (Hamilton); Charles A. Phelps, Fort Wayne (Allen), and Frank T. Millis, Campbellsburg (Orange and Washington).

The official tabulation of the roll call follows:

Names	*Ayes*	*Noes*
Abshier	x	
Allen	x	
Andrews		x
Baker of Marion		x
Baker of Marshall	x	
Bartley		
Batman		
Baxter	x	
Baylor		x
Beasley	x	
Berry		x
Bond		x
Chandler	x	
Chubinski		
Coffin		x
Coons		x
Copeland of Ripley	x	
Copeland of Jefferson	x	
Couch	x	
Cox		x
Crawley		x
Creighton		x
Crook	x	
Cubby		x
Danielson		
Darneal		x
Dausman		x
Denton		x
Dill		
Dillin		x
Downey		x
Durham		x
Ehlers	x	
Emig		x
Evans of Hamilton		x
Evans of Henry	x	
Freeman	x	
Fulk		x
Funderburg		
Gavit		
Geisert		x
Gibbons		x
Goddard		x
Grinslade	x	
Guernsey	x	
Gwinnup		

Names	*Ayes*	*Noes*
Harrison		
Heller		x
Henley		
Hiatt	x	
Hiestand		
Hoesel		x
Hoffman		x
Hostettler		x
Hughes of Elkhart	x	
Hughes of Allen		x
Hunter	x	
Johnson		x
Jose	x	
Kendall		x
Klen	x	
Korn		x
Leavell		x
Lee	x	
Lowry	x	
Lutes		x
McClellan		x
McCoy		x
Malone		x
Markland		x
Mayhill		
Meagher		x
Millis		x
Miser		x
Moffett	x	
Moseley		x
Muller		
Murray	x	
Nash	x	
Neumann		
O'Connor	x	
O'Grady		x
Olczak		x
O'Rourke		x
Phelps		x
Reynolds	x	
Richards		x
Roell		
Schermerhorn	x	
Slenker		
Smith	x	
Steele		x
Summerland	x	
Tucker	x	
Tudor	x	
Weller		x
Welsh		
West		
Williams	x	
Mr. Speaker		
Total	33	48

Bartley, Batman, Chubinski, Danielson, Dill, Funderburg, Gavit, Gwinnup, Harrison, Henley, Hiestand, Mayhill, Muller, Neumann, Roell, Slenker, Welsh, and West did not vote.

Several of the men who voted for the chiropractic bill afterwards said that they had gotten mixed up on the roll call and thought that in voting "yes" they were voting on a motion to indefinitely postpone the bill.

Medical Board Cuts Restored

Again thanks to the cooperation of the local county society legislative committees, and the effective work of Miss Ruth Kirk, secretary of the Indiana State Board of Medical Registration and Examination, the budget for the state medical board was restored in the Senate. Had this not occurred the board would have found itself greatly handicapped for lack of funds.

No Reduction in Gross Income Tax

Attempts were made but failed to gain a universal cut in the gross income tax. Although a one-half of one per cent cut for service groups, which would have helped the dispensing physicians, was passed in the Senate, this was eliminated in the House, and so professional groups receive no reduction in the gross income tax.

Limitation on Malpractice Suits

A measure, which passed, limiting the time for bringing actions for malpractice, sponsored by insurance companies, should cut down somewhat the number of malpractice suits brought against physicians.

BILLS SIGNED BY THE GOVERNOR

Measures of particular interest to the medical profession which were passed and signed by the Governor follow:

H. B. 37 (Korn)—Amends insurance act to provide that directors of companies writing only physicians' or dentists' liability insurance shall be either a policy holder, or shall have had five years or more actual experience in the management or underwriting of such insurance. Emergency.

H. B. 40 (Crawley)—Changes the name of the Indiana School for Feeble Minded Youth to the Fort Wayne State School, and the name of the Muscatatuck Colony to the Muscatatuck State School.

H. B. 84 (Lee-Abshier)—Exempts newspaper carriers from certain physical examinations and working hour regulations of child labor law. Emergency.

H. B. 101 (Williams-Batman)—Township trustees' budget bill. Beginning January 1, 1942, poor relief funds must be budgeted. It will then be unlawful to spend or incur debts in excess of that budget. This will apply to medical and hospital care as well as other necessities furnished indigents. However, in "emergencies," the trustee may report that fact to the county auditor and the trustee may then contract necessary obligations. The word "emergency" is not defined in the act and the word "extraordinary" which im-

mediately preceded the word "emergency" was stricken out. Township trustees interpret the legislative action as meaning that if funds are low, the usual process for all governmental units of selling bonds and obtaining extra appropriations must be followed and in the meantime relief must be denied. When there is an emergency, such as flood, unusual demands or otherwise, then the trustee may report to the county auditor and incur the obligation.

H. B. 145 (Jose, et al.)—Requires cities with paid fire departments to pay hospital and physician expenses of firemen injured or who contract illness while in performance of their work.

H. B. 212 (W. O. Hughes)—Increases population requirements of counties from 155,000 to 160,000 for authorization to contract with other counties for tuberculosis treatment. (Affects Irene Byron Tuberculosis Hospital in Fort Wayne.)

H. B. 228 (Lee-Guernsey)—Provides for transfers of school children to tuberculosis hospitals. Authorizes pay not exceeding $40 a semester for tuition.

H. B. 246 (Millis-Denton)—Puts drivers' licenses on sale January 1 and makes the dead-line for obtaining them March 1, with penalties for violation.

H. B. 253 (Gibbons, et al.)—Awards $1,000 property tax deduction to honorably discharged nurses or veterans of the military or naval forces with service-connected disability of 10 per cent or more. Emergency.

H. B. 280 (Creighton-Denton)—Budget bill. Appropriated $6,800 for the annual expenditure of the State Board of Medical Registration and Examination. A cut here would have crippled the functions of the Board. Also carried $209,500 appropriation for the State Board of Health, a cut of approximately $40,000 from allowance last year.

H. B. 349 (Korn)—Requires actions for damage against physicians, surgeons, dentists, hospitals, sanitariums to be filed within two years from date of occurrence on which the damages are asked. Effective 90 days from passage.

The old statute of limitations provided that actions for personal injuries must be brought within two years from the date the injuries were inflicted; and that actions on contract must be brought within six years of date of alleged breach of contract. Where actions for malpractice were brought on the theory that the alleged wrongful act of the doctor constituted a breach of either an express or an implied contract the doctor made to give proper treatment when he took the case, there were judges who were inclined to the view that the action could be brought within six years, although the Indiana Supreme Court held otherwise in a case decided some years ago. The law sponsored by insurance companies, particularly the Medical Protective Company, just enacted, makes definite that no action can be brought for personal injuries, including injuries from alleged malpractice, after two years from the date of the injuries.

H. B. 375 (Henley-Williams)—Enables not-for-profit corporations to amend articles of incorporation by action of board of directors of corporation and provides that one copy be filed with the secretary of state and the other with the county recorder.

H. B. 446 (Crook-Allen)—Changes population limit to enable South Bend to continue to appropriate funds for support of private hospitals. Emergency.

H. B. 474 (Moffett, et al.)—Places control and licensing of milk and allied industries under State Board of Health.

H. B. 512 (Crook, et al.)—Requires that school children be given scientific hearing test once a year and provided with correctional devices if hearing is found impaired.

S. B. 59 (Jenner-Ferris)—Increases maximum old-age assistance and blind assistance from $30 to $40 a month; provides that the county welfare departments shall pay for medical care of such recipients rather than by the township. This may help iron out a situation which has caused much dissatisfaction in the past as no funds were available in some instances to pay for these medical services.

S. B. 109 (Beardsley-VanNess)—Requires applicants for motor vehicle licenses, certificates of registration or licenses for professions and trades to present to the issuing authority personal property tax receipts as well as poll tax receipts. Only the latter is now required by law.

S. B. 118 (Johnson)—Requires an examination for tuberculosis of school teachers, school bus drivers, and janitors; provides that pupils cannot be compelled to take examinations or treatment if their parents object, the objection being in writing.

S. B. 137 (Jewett)—Elkhart hospital bill authorizing that city to levy a tax rate up to 7 cents to aid in the support of privately owned hospitals.

BILLS PASSED OVER VETO OR BECOMING LAWS UNSIGNED

H. B. 16 (Henley, et al.)—Removes from the Governor sole authority over appointment of trustees of 19 state penal, benevolent and correctional institutions. Provides for appointment of trustees by the Governor and Lieutenant Governor. Boards to comprise four members and to be bi-partisan, and to have complete authority over the institutions, including personnel and operating practices. Effective May 30, 1941. Emergency. Passed over the Governor's veto.

H. B. 18 (Millis, et al.)—Replaces the 1933 reorganization act and creates four state departments—State, Audit and Control, Treasury, and

Public Works and Commerce. Leaves to exclusive control of Governor only land and naval militia, state armory board, adjutant-general, and other military commissions; clemency commission, probation commission, fire marshal and state police. Other departments would be controlled by three-member boards composed as follows: Secretary of State, Auditor and Governor; Audit and Control-Auditor, Governor and Secretary of State; Treasury—Treasurer, Governor and Lieutenant Governor; Public Works and Commerce—Lieutenant Governor, Governor and Treasurer. Effective July 1, 1941. Passed over the Governor's veto.

S. B. 14 (Jenner, et al.)—Public Welfare Department bill reducing the board from five to four members, two to be appointed by the Governor and two by the Lieutenant Governor; provides for the board to employ the welfare director instead of the Governor as now provided. Removes from the board its powers and duties in respect to parolees and removes authority of Governor to transfer other agencies to the welfare department. This bill was passed over the Governor's veto.

S. B. 21 (Biddinger, et al.)—Amends 1936 act accepting provisions of the social security act to conform to the proposed new state government setup. It designates the board of the department of which the Board of Health is a part to approve employment of persons to carry on the health activities of the Federal program. Became law without signature.

S. B. 111 (Biddinger)—Gives State Board of Health authority to prescribe types of vaults used in burials. Became law without signature.

S. B. 129 (Jenner)—Establishes state personnel merit system May 1 for employees of Board of Health and other agencies and departments of the State. Creates four-member bi-partisan merit board, two appointed by Governor and two by Lieutenant Governor. Board appoints a director. Gives preference to war veterans, their wives and widows. Became law without signature.

BILLS FAILING TO PASS OR VETOED

H. B. 7 (Harrison, et al.)—Repeals 1937 law creating state housing board and local housing commissions. Emergency. There was no action on this bill.

H. B. 26 (Durham, et al.)—Provides state payment of costs for vocational training of disabled persons up to $12 a week for 36 weeks, except those under workmen's compensation. There was no action on this bill.

H. B. 53 (Lutes)—Establishes speed limits of sixty miles an hour for passenger cars and forty-five miles an hour for buses. There was no action on this bill.

H. B. 129 (Reynolds, et al.)—Chiropractic separate board bill. Failed to pass in House on third reading, 33 to 47.

H. B. 154 (Heller-W. S. Baker)—Would require physicians and hospitals giving emergency treatment to indigents and seeking to collect their fees from township trustees, to notify the trustees within three days. This bill reached second reading in the House.

H. B. 186 (Lee-Nash)—Exempts employers from payment of compensation for occupational disease of an employee who contracted the disease under a previous employer. This bill reached second reading in the House.

H. B. 192 (O'Grady-Neumann)—Would require licensing of manufacturers, wholesalers, and retailers of prophylactic devices by the State Board of Health and restricts sale to retail drug stores. This bill died in committee.

H. B. 199 (Welsh)—Knox County tuberculosis bill. Provides state reimbursement to certain counties having tuberculosis hospitals on the basis of $1 a day per patient. This bill was postponed in the House.

H. B. 245 (Hiestand, et al.)—Amends beauty culture law requiring shop managers to have a year's experience; requires training course of 1500 hours over a period of nine months and a common school education. Mandates registration with the state board of all beauty shops and fixes state examination fee at $10.00. Provides for bi-partisan beauty board. This bill passed the House and Senate but was pocket vetoed by the Governor.

H. B. 261 (Ehlers, Moffett, Baxter)—Terminates, as of July 1, 1941, the terms of members of Marion County welfare board and provides for appointment of board members by state welfare board instead of circuit court judge as at present. This bill reached second reading in the House.

H. B. 286 (Richards-Murray)—Abolishes present state barber board and places supervision of barber shops under the State Board of Health. This bill reached second reading in the House.

H. B. 291 (Meagher-H. H. Evans)—Gives state board of beauty culturist examiners authority to fix prices and hours for beauty parlors. Sets up county as area for price-hour fixing. This bill passed the House but failed in the Senate, 24 to 19.

H. B. 293 (Cubby, et al.)—Amends workmen's compensation act to make employer financially responsible for medical treatment for 180 days after injury. Makes compensation board's chairman salary $5,000 a year. This bill reached second reading in the House.

H. B. 315 (Phelps)—Authorizes establishment of northern Indiana hospital for crippled children and those suffering from infantile paralysis to be located north of U. S. 30. Provides for appointment of board of trustees and superintendent. Appropriates $250,000 and $50,000 a year for maintenance. This bill reached second reading in the House.

H. B. 317 (Fulk)—Requires that county hospitals caring for township relief indigents shall be paid not to exceed $3 a day from township relief funds. This bill passed the House but failed in the Senate.

H. B. 337 (Neumann)—Amends 1935 State narcotic act exempting preparations with up to one grain of codeine or of its salts under certain conditions; adds duly licensed physicians or surgeons and retired commissioned medical officers to persons who may buy narcotics for medical needs. This bill died in committee.

H. B. 340 (Allen, et al.)—Creates a temporary commission to study Negro conditions and to recommend measures to improve the economic, cultural, health and living conditions of urban Negro population of state. This bill passed the House but failed in the Senate, 80 to 0.

H. B. 344 (Batman-O'Grady)—Provides for a salary range of from $200 to $1,800 a year for county health officers and fixing minimum on basis of 3 cents per capita of county's population. This bill died in committee.

H. B. 357 (Hiatt-Richards)—Sets renewal license fee for podiatrists at $5 and provides that license money be spent in enforcement of 1925 podiatry act. This bill reached second reading in the House.

H. B. 373 (Lee-Abshier)—Makes the owner of any dog liable for injuries suffered by any person bitten thereby, regardless of owner's knowledge of animal's viciousness. This bill failed to pass the House, 36 to 31.

H. B. 385 (Crook, et al.)—Provides that the amount of any township poor relief rate which is in excess of 30 cents shall be spread over the entire county. No action was taken on this bill.

H. B. 420 (Jose, et al.)—Christian Science bill. Exempts fifth grade pupils from teaching of certain phases of hygiene and sanitary science when parents or guardian file written statements that such instruction conflicts with child's religious beliefs. This bill passed the House but was indefinitely postponed in the Senate.

H. B. 443 (Muller, et al.)—Naturopathic bill. This bill died in the House after passing second reading.

H. B. 459 (Denton)—Non-profit hospital service insurance bill similar to the measure which passed the legislature in 1939 but was pocket vetoed by the Governor. No action was taken on this bill.

H. B. 465 (C. E. Hughes)—Requires county recorder to keep indexed records of births and deaths, designating recorder as official custodian of such records. No action was taken on this bill.

H. B. 482 (H. H. Evans-Richards)—Prescribes fine as penalty for failure of physicians and others in attendance at births or deaths to make notice to county clerk within 10 days. This bill reached second reading in the House.

H. B. 529 (Baker of Marshall, et al.)—Abolishes present state live stock sanitary board and veterinary examining board. Terminates tenure of present state veterinarian and his employees July 15, 1941. New board to be named by commissioner of agriculture from slates presented by five live stock and veterinary associations. New board to name new state veterinarian. This bill passed the House and Senate but was pocket vetoed by the Governor.

H. B. 534 (Cox, et al.)—Gives township trustee or judge of county court authority to order hospitalization of indigent persons and requiring county to pay cost. Hospital commitment bill. This bill was amended in committee and died on third reading in the House.

H. B. 548 (Richards, et al.)—Narcotic control department bill. This bill passed the House but died in Senate committee.

H. B. 561 (Guernsey-Neumann)—Regulates sale and possessions of barbitals, barbituric acid and its derivatives and provides penalty for violation. This bill reached second reading in the House.

H. B. 590 (O'Connor, et al.)—Requires the licensing of plumbers by the State Board of Health and sets up plumbing standards. No action was taken on this bill.

H. B. 594 (Reynolds-Durham)—Authorizes state veterinarian to cooperate with U. S. Bureau of Animal Husbandry in Bang's disease control; grants him powers to carry out such a program and appropriates $2,000 to pay the cost. No action was taken on this bill.

H. B. 599 (Danielson)—Authorizes State Board of Health to spend $75,000 for pneumonia and other serums for use without charge for poor persons unable to purchase it. No action was taken on this bill.

H. B. 626 (O'Connor, by request)—Cult "physiotherapy" bill. This bill died in the House after passing second reading.

H. B. 627 (O'Connor, by request)—Cult bill regulating massatherapists and hydrotherapists. This bill reached second reading in the House.

H. B. 659 (Abshier-Grinslade)—Amends 1939 pure food and drug act as it applies to candy products. No action was taken on this bill.

H. B. 671 (Slenker)—Imposes license fee of one-half cent per half pint or fraction thereof on all soft drinks for assistance to aged blind persons and dependent or crippled children, child health and welfare. Emergency. No action was taken on this bill.

S. B. 8 (Ferris, et al.)—Repeals the 1935 act which created the state planning board. This bill passed the Senate but no action in the House.

S. B. 20 (Shull, et al.)—Repeals the 1935 act creating county planning commissions. This bill was withdrawn.

S. B. 24 (Bedwell, et al.)—Amends workmen's compensation act to allow disability compensation for not more than 64 weeks in addition to impairment compensation now subject to deduction of disability payments. Increases minimum average weekly wage provision from $16.00 to $18.20 a week and a maximum from $30 to $38. Increases total benefits from $5,000 to $10,500. This bill passed the Senate and reached second reading in the House.

S. B. 50 (Gonas)—Reduces waiting period for unemployment compensation to one week and raises maximum number of weekly payments from 15 to 20. This bill died in committee.

S. B. 56 (Beveridge, et al.)—Licenses collection agencies with secretary of state. This bill passed the Senate but was indefinitely postponed in the House.

S. B. 62 (Lucas)—Repeals 1909 garnishee law. This bill passed the Senate but no action in the House.

S. B. 87 (Lee)—Establishes state department for deaf. This bill passed the Senate and reached second reading in the House.

S. B. 90 (Batterton, et al.)—State Board of Health reorganization bill. This bill passed both Senate and House but failed in conference committee.

S. B. 134 (Gonas)—Places all employees under 1937 occupational disease law (now optional). This bill died in Senate Labor Committee.

S. B. 159 (Lee)—Provides physical examinations for school employees similar to Johnson bill which was passed and signed. This bill died in committee.

S. B. 169 (Gonas)—Extends to physically handicapped persons the same assistance now granted to the blind. This bill died in committee.

S. B. 185 (Garrott, et al.)—Requires approval of state board of health and administrative building council for plans for school buildings. Write some new building specifications for the buildings. This bill passed the Senate and reached second reading in the House.

S. B. 188 (Lane)—Provides that records of births and deaths shall be kept as permanent records by county clerks and the State Board of Health. This bill passed the Senate and reached second reading in the House.

S. B. 194 (E. R. Conroy)—Permits courts to order mental examination of prisoners awaiting sentence, and provides for transferring prisoners to institutions for mental cases; provides that at expiration of minimum sentence, prisoners adjudged insane may apply for reexamination. This bill died in committee.

S. B. 230 (Gonas)—Amends South Bend city hospital act. This bill passed the Senate but no action in the House.

S. B. 263 (Biddinger, et al.)—Amends workmen's compensation law to increase medical care by employer from 90 to 180 days and increases wage range on which compensation shall be paid from $16.50-$30.00 to $18.00-$38.00. This bill died in committee.

S. B. 264 (Pell)—Amends county hospital law to create a four-member board of trustees appointed by a circuit court judge. Two members may be women. Affects existing members as trustee vacancies occur. This bill died in committee.

S. B. 275 (Brown)—Provides that employees shall receive a copy of a physician's examination report along with employer in workmen's compensation cases. This bill passed the Senate but died in the House.

S. B. 280 (Hendricks, Miller of Vanderburgh)—Permitting counties and cities therein to join in establishing full time health departments. This bill passed the Senate and reached second reading in the House.

S. B. 287 (Miller of Monroe)—Permitting councils of third-class cities to pay health board clerk $600 a year and in fourth-class cities $500 annually; authorizing clerical assistants. This bill died in committee.

S. B. 309 (Chamberlin, Hendricks)—Licenses persons and firms engaged in fumigation and pest extermination and places them under supervision of state board of health. This bill passed the Senate and reached second reading in the House.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Norman M. Beatty,
J. William Wright,
Co-Chairmen.

George Daniels,
John Hewitt,
J. R. Doty,
George Dillinger,
Milton Popp.

CANCER CONTROL MONTH—APRIL 1-30, 1941

April is cancer control month throughout the nation, by special act of Congress and annual proclamation by the President of the United States, the Governors of the various states and mayors of hundreds of cities.

On April 1, the Women's Field Army of the American Society for Control of Cancer will open its spring offensive to save lives by spreading information about cancer symptoms and treatment. The 1941 slogan is "Health Defense is National Defense." Thus the campaign will place emphasis on the fact that our front line defense is dependent upon a healthy, actively functioning citizenship behind the lines.

Mrs. Isaac Born, Indiana commander of the Field Army, has developed splendid leadership throughout the state. The counties are ready to go. The enlistment goal is set high, 30,000. As the number last year was somewhat short of 10,000, this seems an ambitious figure, but with increased officer personnel and new arousal of interest in all sections, the goal does not appear impossible.

Again, the cancer danger signals will be published and given wide distribution. Several hundred thousand pieces of literature will be distributed, to tell the women—and men, too—in highways and byways of the state what they must know and what they must look for to protect themselves against the killer, cancer.

Some excerpts from the pamphlets are: "Remember that early is the watchword—that fear is based on ignorance. Courage comes from knowledge. Be on the alert. Pain is a late symptom. Remember—cancer is a personal problem."

Strongly stressed is the importance of the annual physical examination leading to early diagnosis and prompt treatment by surgery, x-ray or radium.

The campaign will be promoted by newspaper and radio publicity, by personal appearances of Field Army officers before women's clubs and other groups, and by specially arranged health meetings in addition to the personal enlistment effort. Mrs. Ronald M. Hazen, captain of the Indianapolis area, announces that there will be 100 parties in Indianapolis homes on April first to benefit the campaign. Mrs. Hazen's aggressive organization started the year's effort by sponsoring an opening night at the Civic Theatre, with highly successful results.

The entire campaign is dependent upon the advice and cooperation of physicians. Dr. Chester A. Stayton is chairman of the executive committee, with Dr. Don D. Bowers, Dr. John W. Ferree, Dr. Frank Forry and Dr. E. E. Padgett on his committee. The state-wide advisory council of physicians includes the following:

Dr. M. A. Austin of Anderson; Dr. A. R. Chambers, Fort Wayne; Dr. Stanley A. Clark, South Bend; Dr. George R. Dillinger, French Lick; Dr. D. C. McClelland, Lafayette; Dr. A. M. Mitchell, Terre Haute; Dr. R. G. Moore, Vincennes; Dr. William C. Moore, Muncie; Dr. L. H. Osterman, Seymour; Dr. W. C. Reed, Bloomington; Dr. James S. Rich, Evansville; Dr. E. V. Wiseman, Greencastle; Dr. G. H. Wisener, Richmond; Dr. Henry R. Alburger, Dr. W. D. Gatch, Dr. J. William Hofmann, Dr. Edgar F. Kiser, Dr. Charles W. Myers, Dr. Cleon A. Nafe, Dr. Thurman B. Rice and Dr. Karl R. Ruddell, Indianapolis.

Also on the advisory council are G. H. A. Clowes, Ph.D., and John G. Benson, superintendent of the Methodist Hospital. Irving W. Lemaux, of the Security Trust Co., Indianapolis, is state treasurer.

Mrs. Born's deputy commanders are Mrs. Beryl Showers Holland, Bloomington; Mrs. George R. Dillinger, French Lick; Mrs. Ronald M. Hazen, Mrs. Kin Hubbard, Mrs. Peter C. Reilly and Mrs. Susa P. Moore, Indianapolis.

District commanders are: Second, Mrs. Carl G. F. Franzen, Bloomington; Third, Mrs. Azro Moss, Orleans; Fourth, Mrs. T. P. Knoedler, Columbus; Fifth, Mrs. E. Guy Collings, Bainbridge; Sixth, Mrs. Fred Cossairt, Shelbyville; Seventh, Mrs. E. M. Dill, Plainfield; Eighth, Mrs. Bert F. Terry, Winchester; Ninth, Mrs. Frank W. Peyton, Lafayette; Tenth, Mrs. Harry Cohen, East Chicago; Eleventh, Mrs. Wellman Bruner, Wabash; Twelfth, Dr. Jessie C. Calvin, Fort Wayne.

—Florence Herz Stone,
State Director of Publicity.

MAY DAY—CHILD HEALTH DAY 1941

May Day—Child Health Day, 1941, offers an opportunity to emphasize again the national importance of maintaining and advancing our community service for the protection of maternal and child health. Following the policy agreed upon last year with the State and Provincial Health Authorities of North America, the Indiana Bureau of Maternal and Child Health of the State Board of Health will not seek to stimulate plans for a statewide observance of Child Health Day. However, the Children's Bureau in Washington, and the Indiana Bureau of Maternal and Child Health

will make available to local communities various program material which is suitable for the occasion.

It is hoped that local communities will form their official committees early for their May Day programs, and will include all organizations which have as one of their objectives the improvement of maternal and child health and welfare. The cooperation of the local physicians, the county and city health authorities, and the public health nurses should be sought.

Following is a list of various pamphlets, folders, and posters which may be obtained in limited quantities from the Bureau of Maternal and Child Health of the Indiana State Board of Health for augmenting the local May Day programs. Single copies may be obtained free also from the Children's Bureau, U. S. Department of Labor, Washington, D. C. Copies of both the President's Child Health Day Proclamation and the Governor's will be sent to the local chairman upon request. These will probably be available for distribution soon after April 1st.

General

Facts About Child Health
Facts About Crippled Children
The Health Situation of Negro Mothers and Babies in the United States
Better Care for Mother and Child

Folders on Nutrition

Well-Nourished Children
The Healthy, Well-Nourished Baby, Birth to 1 Year
The Healthy, Well-Nourished Child, 1 to 6 Years
The Healthy, Well-Nourished Child, 6 to 16 Years
Mother! Nurse Your Baby!
Feeding Your Baby
Your Young Child's Health
Your School Child's Health
The Noon Meal at School
Your Children's Food and the Family Pocketbook
Substitutes for the Sun
Eat the Right Food

Posters

Good Posture in the Little Child
The Health of the Child Is the Power of the Nation
Health Protection for Every Child
Some of the Gaps in Existing Services for Mothers and Babies

Bulletins for Parents on Maternal and Child Care

The Expectant Mother
Keeping the Well Baby Well
Out of Babyhood Into Childhood
Your Child's Sleep
Prenatal Care
Infant Care
The Child From One to Six
Child Management
Are You Training Your Child to Be Happy?
Good Posture in the Little Child
Guiding the Adolescent

Publications of Interest to Physicians and Public Health Workers

Standards of Prenatal Care
The Appraisal of the Newborn Infant
The Child Health Conference; Suggestions for Organization and Procedure
Health and Medical Care for Children. Reprint from Preliminary Statements Submitted to the White House Conference on Children in a Democracy.

UNDER THE CAPITOL DOME

Indiana followed the lead of the nation in reporting an increased birth rate for 1940.

Statistics reported by the Indiana State Board of Health showed that births totaled 61,488 during the year, the highest total in the last twelve years. The rate per 1,000 of population also was the highest in the last ten years, but not quite so high as the rates of 1930 and 1929. The 1940 birth rate was 17.9 per 1,000 population.

A slight increase in the death rate also was reported by the board. The rate was 11.7 per 1,000 population, as compared with 11.3 in 1939.

Organic heart diseases led in the causes of death, being responsible for 10,814 of the total 40,269 deaths occurring in the state during the year.

The second highest contributor to the mortality rate was apoplexy, which caused 5,018. Number 3 was cancer, with 4,344.

Accidents of all types resulted in 2,986 deaths and was the fourth highest reported cause of death. During the preceding year accidents caused 2,621 deaths. Bright's Disease was the fifth highest contributor to the death list, with 2,525 mortalities and pneumonia, with 2,082, was sixth.

Tuberculosis was seventh with 1,343.

Declines from last year were reported for tuberculosis, typhoid fever, diphtheria, scarlet fever, measles, pneumonia, diarrhoea (under 2 years), homicides, alcoholism, and hydrophobia (with none reported for the year).

Alcoholism mortality has declined steadily during the past twelve years. In 1929 there were 143 deaths reported from this cause.

Last year was the first in which no deaths were recorded from hydrophobia. In 1939 there were two.

Increases were reported in deaths due to whooping cough, cerebro-spinal fever, poliomyelitis (seventy-six in 1940 as compared with 4 in 1939).

Cancer deaths reached their peak in the twelve-year period, with 4,344. In 1939 the total deaths from cancer were 3,984.

The infant death rate was 41.9 per 1,000 births (total 2,580) as compared with 39.2 (total 2,292 deaths) in 1939. But the maternal death rate showed a drop to 2.5 per 1,000 births as compared with 3.6 in 1939.

A drop was recorded in the number of homicidal deaths. Total for the year was 107 as compared with 127 the preceding year. Suicides increased by two, with 577 as compared with 575 in 1939.

Deaths due to syphilis were 383 as compared with 241 in 1939.

Influenza was given as the cause of 790 deaths, compared with 926 in the year preceding; diabetes, 525, compared with 582; malaria, 12 as compared with 8; tetanus, 19 as compared with 24; and tularemia, 8 as compared with 9.

Deaths

Thomas William Oberlin, M.D., prominent Hammond physician, and his wife, were killed instantly in an automobile accident on March eleventh. The Oberlins had left Hammond only a few minutes earlier, enroute for a vacation trip to Florida. Their automobile skidded on an icy pavement and collided with a truck.

Dr. Oberlin was sixty-six years of age. He graduated from the Northwestern University Medical School, Chicago, in 1898, and he had been especially interested in pediatrics. His entire medical career was in Hammond where he began his practice in 1898. Dr. Oberlin was the last surviving member of the group of eleven physicians who organized and chartered the Lake County Medical Society of which he was a past president. He was active for many years in the Indiana State Medical Association and had served as chairman of numerous association committees; at the time of his death he was a delegate from the Lake County Medical Society. He was also a past president of the Tenth Councilor District. He was a member of the Lake County Medical Society, a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Harry Orville Jones, M.D., of Berne, died at the Lutheran Hospital at Fort Wayne on February twenty-second. He was fifty-nine years of age. Dr. Jones graduated from the Chicago College of Medicine and Surgery in 1905 and had been in practice at Berne for twenty-seven years. He enlisted in the Medical Corps during the World War and was commissioned a first lieutenant, serving overseas as an x-ray and surgery specialist. He was a member of the Adams County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Willis B. Huron, M.D., of Tipton, aged eighty-three, died on February thirteenth at the Beechwood Hospital after a long illness. Dr. Huron graduated from the Hahnemann Medical College and Hospital, Chicago, in 1886.

* * *

George Washington Kimball, M.D., of Laporte, aged sixty-eight, died on February twenty-third following an extended illness. Dr. Kimball graduated from the University of Illinois College of Medicine, Chicago, in 1902. He was interested in urology, and had practiced at Laporte for more than twenty years. He served as a captain in the Medical Division of the Army Air Corps during the World War. Dr. Kimball was a member of the Laporte County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

William M. O'Brien, M.D., of Greencastle, died on February sixteenth. He was seventy-two years of age. Dr. O'Brien graduated from the Kentucky School of Medicine, Louisville, in 1892. He had practiced at Greencastle since 1924 until two years ago when he retired from practice. He was a member of the Putnam County Medical Society, a member of the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

Darwin Marcel Short, M.D., of Owensville, died on February eighth at his home, aged thirty-six. He had been in poor health for some time, and had spent only a limited time at his office each day. Dr. Short graduated from the Western Reserve University School of Medicine, Cleveland, in 1936. He was a member of the Gibson County Medical Society, was a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Lee Everett Strong, M.D., of Indianapolis, died on March first at the Methodist Hospital, at the age of fifty-three. Dr. Strong was a graduate of the Indiana University School of Medicine in 1910.

* * *

Henry H. Sugg, M.D., of Mount Vernon, aged seventy-four, died on March fourth at a hospital in Evansville. Dr. Sugg graduated from the National University of Arts and Sciences, Medical Department, Saint Louis, in 1890.

James Allen Turner, M.D., of Nashville, died on February nineteenth, aged sixty-five. He graduated from the Medical College of Indiana, Indianapolis, in 1898.

* * *

William Wallace Wadsworth, M.D., of Muncie, died at his home on February twenty-third, after a week's illness. He was seventy-eight years of age. Dr. Wadsworth graduated from the Medical College of Ohio, Cincinnati, in 1897. He had retired from active practice. He was an honorary member of the Delaware-Blackford County Medical Society, of which he was a past president, and was a member of the Indiana State Medical Association, and the American Medical Association.

Thomas Conroy Eley, M.D., of Plymouth, aged forty-eight, died suddenly on January twentieth. Dr. Eley graduated from the Indiana University School of Medicine in 1918. He interrupted his interneship and served in the U. S. Navy during the World War. He specialized in surgery. He was a member of the Marshall County Medical Society, a member of the Indiana State Medical Association, and a Fellow of the American Medical Association.

* * *

Charles S. Fair, M.D., of Fort Wayne, died on January sixteenth after a lingering illness. Dr. Fair graduated from the Fort Wayne College of Medicine in 1896.

News Notes

Dr. William H. Gallagher, assistant physician at the Logansport State Hospital, has resigned to accept a position in a mental hospital in Connecticut.

* * *

Dr. Dorothy Bush Lauer has announced the opening of an office in Dana where she will specialize in gynecology and pediatrics.

* * *

Dr. C. L. Richardson of Rochester has been appointed secretary of the Rochester board of health to succeed Dr. Mark M. Piper who has moved from the city.

* * *

A medical and dental business bureau has been organized in New Castle by Alfred S. Milner. The bureau is cooperating with members of the Henry County Medical Society and the Henry County Dental Society.

* * *

Dr. N. Tauber, assistant physician at Logansport State Hospital, has resigned to accept a position on the medical staff of St. Elizabeth's Hospital, Washington, D.C.

* * *

Dr. Dick Steele has been named acting head of the health service at DePauw university, Greencastle, to succeed Dr. Gerald N. Rein who has resigned.

* * *

Miss Ferrel Fenimore of North Judson and Dr. Richard Schug of Decatur were married in Indianapolis in February. Dr. Schug is now on the staff of the Henry Ford Hospital in Detroit.

* * *

The new Murphy Medical Center in Warsaw was opened February sixteenth when an estimated three thousand visitors inspected the new building.

Miss Janet Guisinger of Anderson and Dr. C. P. McLaughlin of Pendleton were married February fifteenth in Anderson. Dr. and Mrs. McLaughlin will reside in Columbus, Ohio, where Dr. McLaughlin is stationed with the Army medical corps.

* * *

Dr. Robert M. Ferguson of Indianapolis has taken charge of District Health Department Number Four, located in Rising Sun.

* * *

Dr. R. E. Nelson has assumed duties as doctor and surgeon at the Indiana Reformatory in Pendleton. Dr. Nelson has been surgeon at a Louisville infirmary for several years.

* * *

Articles of incorporation have been filed for the Ft. Wayne Hospital, Inc., replacing the Ft. Wayne Methodist Hospital. The new corporation will direct a hospital expansion program which is planned to lead to the construction of a new building on an eighteen-acre tract in the northeastern part of Fort Wayne.

* * *

Plans have been drawn for a $300,000 psychiatric hospital to be erected near Dyer, Indiana, by the Sisters of Mercy Order, Detroit province, in the near future.

* * *

Dr. Robert F. Carmody of Gary and Miss Marianne Graves of Valparaiso were married February twelfth and took a month's trip to Mexico.

* * *

The American College of Physicians will hold its twenty-fifth annual session in Boston, Massachusetts, April 21-25, 1941, with general headquarters at the Hotel Statler. Dr. E. R. Loveland, Executive Secretary, 4200 Pine Street, Philadelphia, Pa., will supply detailed information and program upon request.

On March fifth Dr. Herman M. Baker, of Evansville, addressed The Indiana League of Nursing Education on "The Nursing Education and the Mobilization Program," and on March twelfth he addressed the Central District Nurses' Association, held at the War Memorial Auditorium in Indianapolis, on "The Nurse and Mobilization."

* * *

A new four-reel motion picture, "Exploring with X-Rays," has been released by the General Electric X-Ray Corporation. It is an educational picture, telling the story of the x-rays and their applications. It is designed for showing to lay audiences and will be loaned free of charge, except for transportation costs, to physicians who wish to use such a film when speaking before lay groups. A descriptive leaflet is available from the General Electric X-Ray Corporation, Chicago.

* * *

An intensive postgraduate course in ophthalmology will be given at the George Washington University School of Medicine, Washington, D.C., April 7th to 12th, 1941. There will be a practical course, limited to 25 participants, in ocular surgery, pathology and orthoptics. Information concerning registration fees and complete program may be obtained from the secretary, Miss Louisa G. Wells, 927 Seventeenth St., N.W., Washington, D.C.

* * *

The American Association of Industrial Physicians and Surgeons and the American Industrial Hygiene Association will hold a postgraduate "institute" in Pittsburgh, May 5 to 9, 1941. This will be the twenty-sixth annual meeting of the American Association of Industrial Physicians and Surgeons, and the second annual meeting of the American Industrial Hygiene Association. The majority of the sessions will be held at the William Penn Hotel. Detailed information concerning the program may be obtained by writing to William R. Harshe, Inc., 20 North Wacker Drive, Chicago, Illinois.

* * *

The library of Dr. Smith Ely Jelliffe of New York has become the property of the Neuro-Psychiatric Institute of the Hartford Retreat. The library consists of 15,000 volumes, one of the largest and most complete private collections in neurology and psychiatry. The library is to be maintained on a national basis so that it will be available not only to medical and research staffs of the Institute but to other qualified workers throughout the country. Dr. Jelliffe, managing editor of *The Journal of Nervous and Mental Diseases*, expects to make additional contributions to the library from time to time. With the addition of Dr. Jelliffe's library to the volumes already in possession of the Institute, it is believed that the library will be one of the best of its kind in the country.

The Foundation Prize of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons ($150) is offered to contestants for the selected successful manuscript which must be submitted before June first. Eligible contestants are interns, residents, or graduate students in obstetrics, gynecology or abdominal surgery, and physicians who are actively practicing or teaching obstetrics, gynecology, or abdominal surgery. Manuscripts are limited to five thousand words. Complete information may be obtained by writing to the secretary, James R. Bloss, M.D., 418 Eleventh Street, Huntington, West Virginia.

* * *

The U. S. Civil Service Commission announces that applications for positions of Senior Pharmacologist, Pharmacologist, Associate Pharmacologist and Assistant Pharmacologist will be rated as received until December 31, 1941, and certification made as the needs of the service require except that if sufficient eligibles are obtained, the receipt of applications may be closed, in which case due notice will be given.

Applications also will be accepted continuously until further notice for the positions of Public Health Nurse and Graduate Nurse, General Staff Duty, for the Indian Field Service, including Alaska, Department of the Interior.

Application blanks may be obtained from the U. S. Civil Service Commission, Washington, D.C., or from the Secretary, Board of U. S. Civil Service Examiners, at any first or second-class post office.

* * *

NINTH ANNUAL I. U. POSTGRADUATE COURSE

The ninth annual postgraduate course at Indiana University School of Medicine will open April twenty-eighth and continue through May second. Subjects of interest to physicians, relating either directly or indirectly to national defense, will be covered throughout the course. Consideration will be given to important conditions relating to industrial medicine as well as to military medicine. A wide variety of subjects will be introduced in the forenoon periods which will be devoted to clinics and round table discussions. The afternoon periods will consist of didactic lectures and clinico-pathological conferences. Physicians of national prominence will participate in these conferences. Motion pictures will be shown. Nationally prominent physicians will give the evening lectures, among whom will be Dr. Walter Boothby of the Mayo Clinic, who will speak Friday evening on the subject of "Aviation Medicine."

POSTGRADUATE COURSE IN OBSTETRICS TO BE HELD AT INDIANA UNIVERSITY

The third of the current series of Postgraduate Courses in Obstetrics sponsored by Indiana University School of Medicine, Indiana State Medical Association, in cooperation with the State Board of Health, will be given from April 14 to 26, inclu-

sive. The last course in the series for the present school term will be held from July 7 to 19, inclusive.

These courses are designed to present a review of obstetric procedures, and to demonstrate the underlying principles of obstetrics. The courses are given at the Coleman Hospital, Indiana University Medical Center, and any physician interested in obstetrics is eligible. Room and board are furnished for the physicians while they are in attendance. Opportunity is given to see all pathologic deliveries at the Coleman Hospital and at the Indianapolis City Hospital, and ward rounds and clinics are held at both institutions.

The postgraduate program in obstetrics is under the full-time direction of Carl P. Huber, M.D., Associate Professor of Obstetrics, Indiana University School of Medicine, and Director of Postgraduate Instruction in Obstetrics of Indiana State Board of Health. In addition, the regular staff members of the Department of Obstetrics and the Departments of Pathology and Pediatrics will assist in giving these courses.

Any physician interested in attending either of these scheduled courses are urged to communicate immediately with Doctor Huber, or with Doctor C. J. Clark, Chairman of the Department of Postgraduate Education, Indiana University School of Medicine, Indianapolis, Indiana.

These postgraduate courses have been offered to the physicians of the State of Indiana since 1938 in the belief that continued education for the physician is a function of the Indiana State Medical Association, Indiana University School of Medicine, and the Indiana State Board of Health. There are many areas in the State from which representative physicians have not attended. It is hoped that this opportunity will not be overlooked.

The secretaries of the local county medical societies are urged to bring these courses to the attention of their constituent members.

The general oral and pathological examinations (Part II) of the American Board of Obstetrics and Gynecology for all candidates (Groups A and B) will be conducted at Cleveland, Ohio, by the entire Board from Wednesday, May 28, to Monday, June 2, 1941, inclusive, prior to the opening of the annual meeting of the American Medical Association in Cleveland, Ohio. Formal notice of the time and place of these examinations will be sent each candidate several weeks in advance of the examination dates. Candidates for re-examination in Part II must make written application to the Secretary's Office before April 15, 1941.

The Board requests that all prospective candidates who plan to submit application in the near future request and use the new application form which has this year been inaugurated by the Board. The Secretary will be glad to furnish these forms upon request, together with information regarding Board requirements. Address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

Financial grants-in-aid totaling $271,277.50 during the last three years were reported in January to the National Advisory Cancer Council by Dr. Ludvig Hektoen, Executive Director of the Council. The applications receiving favorable consideration included $129,085 for fundamental cancer research and these grants went to Harvard University, University of Cincinnati, Roscoe B. Jackson Memorial Laboratory of Bar Harbor, Maine, Duke University, University of Chicago, Dr. B. R. Nebel of the Experimental Station of New York, Institute of Cancer Research of Columbia University, Dr. John J. Bittner, Cornell University, Barnard Free Skin and Cancer Hospital in St. Louis, Michael Reese Hospital in Chicago, Memorial Hospital in New York, and Louisiana State University. During the three years period, the sum of $92,570 was granted to the University of California, the University of Michigan, and Washington University of St. Louis for experimental work in connection with the cyclotron or "atom-smashing machine." The sum of $49,652.50 was appropriated for clinical cancer research; these grants went to the National Research Council (for the American Registry of Pathology), the American College of Surgeons, the New York Hospital, the University of California, Meharry Medical College of Nashville, Tennessee, and Dr. Harrison S. Maitland. The National Cancer Institute now has a staff of 38 scientists in addition to 50 technicians, and the Institute's laboratory (the largest of its kind in the world) is complete with modern equipment including an ultra-centrifuge, ultra-violet microscope, x-ray equipment, and four sterile rooms. The Institute is publishing a new magazine, *The Journal of the National Cancer Institute.*

TUBERCULOSIS ASSOCIATION MEETING IN APRIL

The annual meeting of the Indiana Tuberculosis Association will be held April 15 at the Lincoln Hotel, Indianapolis. This session, which will open at 8:00 p.m., is to be addressed by Dr. Esmond R. Long, Director, The Henry Phipps Institute, Philadelphia, Pennsylvania, who will discuss "Military Service and the Anti-Tuberculosis Campaign." Following this, Dr. Kennon Dunham of Cincinnati, Ohio, will speak on "Guiding Epidemiological Principles for Tuberculosis Programs." Dr. Long is outstanding in his research work, particularly in regard to the development of tuberculin; and Dr. Dunham is one of the leading roentgenologists in the United States. Both Dr. Long and Dr. Dunham are past presidents of the National Tuberculosis Association.

On the following day, April 16, beginning at 2:00 p.m., there will be a discussion of the "Physiological Aspects of the Lung" by Dr. Paul M. Harmon, Professor of Physiology, Indiana University, Bloomington, followed by a presentation of

the "Pathological Aspects of the Lung" by Dr. Horace M. Banks, Director of Clinical Laboratories, Methodist Hospital, Indianapolis. The meeting will be in charge of Dr. R. C. Meyer, Vincennes, president of the Indiana Trudeau Society.

NORTHERN TRI-STATE MEETING

The Northern Tri-State Medical Association will hold its annual meeting at Tiffin, Ohio, April eighth. The program will begin at 8:30 a.m., with registration at the Tiffin Theater where all meetings will be held. The banquet will be at the Shawhan Hotel, opposite the theater. Wives of visiting physicians will be entertained by the Woman's Auxiliary of the Seneca County Medical Society. Registration fee is two dollars. The program follows:

8:30 a.m.—Registration.

9:00 a.m.—Frederick F. Yonkman, M.D., Professor of Pharmacology and Therapeutics, Wayne University College of Medicine, Detroit, Mich. Subject—"Emergency Drugs."

9:45 a.m.—Carl D. Camp, M.D., Professor of Neurology, University of Michigan. Subject—"The Neurological Examination and What It Shows."

10:30 a.m.—A. D. Ruedemann, M.D., chief of the Eye Department, Cleveland Clinic. Subject—"The Eye in General Practice."

11:15 a.m.—E. Perry McCullagh, M.D., chief of Section of Endocrinology and Metabolism, Cleveland Clinic. Subject—"Recent Advances in Endocrinology."

1:15 p.m.—Roy W. Scott, M.D., professor of clinical medicine, Western Reserve University. Subject—"Bedside Diagnosis of Certain Cardio-vascular Diseases."

2:00 p.m.—George M. Curtis, M.D., professor of surgery, Ohio State University. Subject—"Recent Developments in Thoracic Surgery."

2:45 p.m.—Business Meeting.

3:00 p.m.—W. D. Gatch, M.D., dean, Indiana University School of Medicine. Subject—"Abdominal Pain."

3:45 p.m.—W. N. Wishard, Jr., M.D., instructor in Genito-Urinary Surgery, Indiana University School of Medicine. Subject—"Urinary Antiseptics from the Viewpoint of General Practice."

6:00 p.m.—Banquet.

8:00 p.m.—Elliott P. Joslin, M.D., professor emeritus of clinical medicine, Harvard Medical School. Subject—"The Application of Recent Physiological Studies to the Treatment of Diabetes Mellitus."

INDIANA UNIVERSITY NEWS NOTES

Practicing physicians of Indiana are attending the postgraduate courses in pediatrics being conducted on Wednesday afternoons by the Indiana University Medical Center at the James Whitcomb Riley Hospital for Children. Planned to give practicing licensed physicians an opportunity to keep abreast of latest developments in care and treatment of children, the lectures and demonstrations, centering around rare and difficult cases encountered at Riley Hospital, are being presented by staff members of the hospital and faculty members of the School of Medicine. A course in military medicine is being conducted each Monday night in the medical school auditorium.

Dr. Henrik Dam, Danish biochemist whose discovery of Vitamin K focused attention of the medical world on Copenhagen, lectured recently at the Indiana University Medical Center. Dr. Dam, brought to the University through the sponsorship of the medical center committee on research, spoke on "Factors in Preventing the Blood from Leaving the Vascular System."

Vitamin K provides the substance in the blood which induces normal congealing and prevention of excessive hemorrhage. It is credited with saving many lives, particularly those of mothers and infants who have been found to be deficient in the substance. Dr. Carl P. Huber, professor of obstetrics at the Indiana University School of Medicine, received the 1940 award of the Central Association of Gynecologists and Obstetricians with a paper setting forth demonstrations of the use of the vitamin at William H. Coleman Hospital for Women, part of the I.U. Medical Center.

Dr. Dam, a graduate of Copenhagen Institute of Technology in 1920, now is on leave of absence from the Biochemical Institute of the University of Copenhagen, where he has been associate professor since 1929. He is regarded as an authority on fats and vitamins and has lectured in England, Germany, Holland, Denmark, Sweden and Norway. He has written numerous articles for scientific journals of the Scandinavian, German and English professional groups.

Dr. Dam arrived in the United States shortly before Christmas after trying to reach this country for nearly nine months. Failing in repeated attempts to make the trip by way of Germany and Italy, he and Mrs. Dam finally took the Finnish line from Petsamo after being required to wait there for six weeks for the boat to sail.

A contribution of $500 has been made to the James Whitcomb Riley Hospital for Children at the Indiana University Medical Center by the Indiana Home Economics Association. The money will be used for an air conditioning unit for the Nursery.

Society Reports

1941 OFFICERS

(Numerous reports were published in the January, February and March issues: these additional reports have been received since then.)

HARRISON COUNTY MEDICAL SOCIETY:

President, Carl E. Dillman, Corydon
Vice-president, Guy D. Baker, Crandall
Secretary-treasurer, William E. Amy, Corydon

SCOTT COUNTY MEDICAL SOCIETY:

President, Marvin McClain, Scottsburg
Secretary-treasurer, J. P. Wilson, Scottsburg

Carroll County Medical Society members met on February thirteenth at the home of Dr. H. Y. Mullin. Dr. Thomas L. Keefe, of Logansport, spoke on "Pneumonia."

* * *

Clinton County Medical Society members met at Frankfort on March fourth. Dr. Joseph W. Strayer, of the Ross Sanitarium at Lafayette, gave a paper entitled "Surgical Treatment of Tuberculosis." Eleven members attended this meeting.

* * *

Delaware-Blackford County Medical Society members met at Hotel Roberts, Muncie, on February eighteenth. Dr. T. R. Owens, of Muncie, spoke on "Recent Advances in Chemotherapy in the Pneumonias." Thirty-three members and three guests were in attendance.

* * *

Elkhart County Medical Society members held a dinner meeting at the Y. W. C. A. on February sixth. The speaker of the evening was Dr. Foster McMillan, of Chicago, his subject being "Intestinal Inflammation."

On March sixth the Elkhart County Medical Society members held a meeting at which Dr. M. E. Lichtenstein, of Chicago, was the principal speaker.

* * *

Fort Wayne Medical Society members held a meeting at the St. Joseph Hospital on February eighteenth. The evening was devoted to the presentation of clinical cases by members of the St. Joseph Hospital staff. Forty-three members were in attendance.

At a meeting held at the Methodist Hospital on March fourth, case reports were given by Drs. M. F. Popp, B. W. Rhamy, P. W. Bailey, A. M. Fichman, F. M. Apfelbaum, and Jeraldine C. Baumgartner. Forty-two members were present.

Fountain-Warren County Medical Society members held a meeting at the Mudlavia Springs Hotel on February sixth. Drs. Wemple Dodds and George A. Collett, of Crawfordsville, were the principal speakers of the evening, discussing "Uterine Hemorrhages."

* * *

Grant County Medical Society members met on February twenty-seventh at the Nurses Home of the Marion General Hospital. Dr. Bruce Stocking, of the Ball Memorial Hospital at Muncie, spoke on "Radiography of the Acute Abdomen." Twenty-six members attended this meeting.

* * *

Greene County Medical Society members held a meeting on February thirteenth at the Freeman County Hospital at Linton. Dr. M. S. Mount, of Bloomfield, spoke on "Acute Appendicitis." Fifteen members were in attendance.

* * *

Hancock County Medical Society members met at the Cozy Lunch for a meeting on February thirteenth. Dr. Larue D. Carter, of Indianapolis, spoke on "Aspects of Mental and Nervous Diseases of Interest to the General Practitioner." Fifteen members were present at this meeting.

* * *

Hendricks County Medical Society members held a meeting at Danville on February twenty-eighth. Ten members attended this meeting.

* * *

Howard County Medical Society members held a meeting at the Saint Joseph Hospital on March seventh. Dr. C. B. Bohner, of Indianapolis, spoke on "Allergy and Immunity." Nineteen members were in attendance.

* * *

Indianapolis (Marion County) Medical Society members held a meeting at the Indianapolis Athletic Club on February eighteenth. Dr. Walter Freeman, of Washington, D. C., spoke on "Surgical Treatment of Disabling Neuroses."

At the meeting held on February twenty-fifth, Dr. R. A. Solomon spoke on "Spontaneous Pneumothorax," Dr. L. T. Meiks spoke on "Lipoid Pneumonia," and Dr. R. U. Leser spoke on "Pulmonary Emphysema."

Case reports were presented at the meeting held by the Indianapolis Medical Society on March fourth: "Thiocyanate in Hypertension"—survey of nine cases, by Dr. Wayne L. Ritter; "Acute Polyradiculoneuritis-Guillain-Barre-Syndrome," by Dr. Brandt F. Steele; "Lymphocytic Chorio-meningitis," by Dr. Walter Stoeffler; and "Sulfanilamide Pyrexia," by Drs. W. Donald Close and Francis C. Smith.

On March fourth, a meeting was held at which Dr. A. B. Richter spoke on "Patent Ductus Arteriosus—Its Diagnosis and Indications for Surgical Treatment"; and Dr. C. Basil Faussett spoke on "Elective Surgery of the Heart and Pericardium."

Jasper-Newton County Medical Society members held a meeting at Rensselaer on February twenty-eighth. Dr. G. W. Batman, of Indianapolis, spoke on "Treatment of Common Fractures." Lantern slides were shown, illustrating common fractures of the wrist and ankle. Twelve members were in attendance.

* * *

Jay County Medical Society members met at Portland on February seventh. Edwin L. Trook, D.D.S., of Marion, spoke on "Focal Infection of the Mouth."

* * *

Knox County Medical Society members met at the Jewel Cafe at Vincennes on February eighteenth. Dr. R. G. Moore, of Vincennes, spoke on "Hypertension." Fourteen members attended this meeting.

* * *

LaPorte County Medical Society members met at the Rumely Hotel, LaPorte, on February twentieth. Dr. Robert S. Berghoff, of the Loyola University Medical School, spoke on "Coronary Disease." Twenty-five members were in attendance.

* * *

Lawrence County Medical Society members held a meeting at the Greystone Hotel on February fifth. Howard Henderson, of Indianapolis, read a technical paper on the maintenance of the fluid balance of the body during illness and before and after surgical operations.

* * *

Madison County Medical Society members met at Anderson on February seventeenth. Dr. E. Rogers Smith, of Indianapolis, gave a historical resume on "Development of Medical Treatment in Nervous and Mental Diseases," which was followed by a round table discussion. Twenty-eight members attended this meeting.

* * *

Marshall County Medical Society members held a joint meeting with the Women's Auxiliary at the Hi-Way Inn on March fifth. Professor George Beauchamp, of the Manchester College, presented a paper on "Socialized Medicine."

* * *

Miami County Medical Society members held a meeting at the Miami County Hospital, Peru, on February twenty-eighth. Dr. F. E. Schmidt, of Chicago, spoke on "Pneumonia." A motion picture film was shown. Nine members were in attendance.

* * *

Muncie Academy of Medicine members met at the Roberts Hotel on February eleventh. Dr. Charles F. McKhann, of the University of Michigan Medical School, addressed one hundred members and guests on the subject "Progress in the Control of Respiratory Infections."

* * *

Northeastern Indiana Academy of Medicine members held a meeting at the Publix, Kendallville, on February twenty-seventh. Dr. Paul L. Stier, Fort Wayne, spoke on "Influenza: Complications and Sequelae."

(Continued on page xxii)

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"In the future my check stubs will show that the Medical Protective fee has gained a position of pre-eminence over rent, supply and other bills of the most fundamental importance."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(52,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $33.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $66.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $99.00 per year

38 years under the same management

$1,850,000 INVESTED ASSETS
$9,500,000 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

(Continued from page xxi)

Parke-Vermillion County Medical Society members met at the Vermillion County Hospital at Clinton on February nineteenth. Dr. Bert Ellis, of Indianapolis, spoke on "Upper Respiratory Infections." Ten members were present at this meeting.

* * *

Putnam County Medical Society members held a dinner meeting on March sixth. Dr. John Warvel was the guest speaker.

* * *

Randolph County Medical Society members held a meeting at the Randolph County Hospital, Winchester, on February tenth. Dr. Arvin Henderson, of Ridgeville, spoke on "Acute Laryngeal Tracheal Bronchitis." Sixteen members were in attendance.

At a meeting held on March tenth, Howard Henderson, of Indianapolis, gave a talk on "Some Practical Aspects of Fluid Administration, Blood Transfusion, Blood Banks, Plasma Fusion and Plasma Banks."

* * *

Rush County Medical Society members met at the Lollis Hotel, Rushville, on February thirteenth. Dr. Robert Moore, of Indianapolis, gave a paper entitled "Common Forms of Heart Disease." Twelve members attended this meeting.

* * *

St. Joseph County Medical Society members held a meeting in the Indiana Club Building on February eleventh. Dr. F. W. Logan, of Mishawaka, spoke on "Electro-cardiography."

On February nineteenth a meeting was held at which Dr. Victor E. Gonda, of Chicago, spoke on "The Electric Shock Method of Treatment in Mental Diseases."

At a meeting held on February twenty-fifth, Dr. A. S. Giordano, of South Bend, spoke on "The Pathologic Physiology of Shock in Relation to Treatment."

* * *

Tri-County Medical Society members met at the Daviess County Hospital on February twenty-fifth. Dr. R. G. Moore, of Vincennes, presented a paper on "Hypertension."

* * *

Wabash County Medical Society members held a meeting at North Manchester on March fifth. Dr. Werner Duemling, of Fort Wayne, spoke on "Some Common Skin Lesions." Seventeen members were in attendance at this meeting.

* * *

Wayne Union County Medical Society members met at the Richmond Leland Hotel on February thirteenth. H. K. Griffen, of the Institute of Pathology, Cleveland, Ohio, was the guest speaker.

WOMAN'S AUXILIARY

President—Mrs. C. L. Bock, Muncie
President-elect—Mrs. E. O. Nay, Terre Haute
Corresponding Secretary—Mrs. T. R. Owens, Muncie
Treasurer—Mrs. M. W. Hillman, South Bend

Our newest county organization, in *La Porte* County, held its second meeting February 21, at the home of Miss Josie Taylor in LaPorte. Thirteen members were present, and enjoyed a discussion of current legislation, following dinner.

The *Delaware-Blackford* auxiliary had a luncheon meeting on February 18, and spent the afternoon sewing and making supplies for the hospital.

The *Vigo* County auxiliary has been very active all fall and winter. Their occupational therapy project occupies a great deal of their time and most of their efforts are directed toward that end. Their annual benefit bridge party held in both the afternoon and evening of October 17 was so successful that the proceeds amounted to three hundred dollars. This money went into the fund which is used to maintain the occupational therapy projects undertaken in both hospitals in Terre Haute. In the annual review editions of the *Terre Haute Tribune* and *Star*, both St. Anthony and Union Hospitals gave much credit to the constructive value of occupational therapy and each have given a light, cheerful room for the use of the occupational therapy teacher, where the ambulatory patients may come to learn the more intricate crafts, which are difficult to teach at the bed-side. This article in the city's papers was very encouraging to the Vigo auxiliary. An exhibit illustrating the scope of the work was prepared by the auxiliary and shown at the eighteenth annual convention of the Woman's Auxiliary to the American Medical Association in New York last June, and again at the bridge party in Terre Haute.

In addition to their bridge party, the Vigo County auxiliary's activities have included a tea in October in honor of their new president, Mrs. Floyd Riggs, a meeting in November at which the speaker was Mrs. V. E. Brudenbaugh, county captain of the Woman's Field Army for Cancer Control, and a guest dinner in January, when they had a speaker and musical program. They sew for the Red Cross at some of their meetings, and, as individuals, their members are very active in the Red Cross and War Relief work.

On Monday, March 3rd, 1941, Dr. A. M. Mitchell, president of the Indiana State Medical Association, gave an address before the *Marion* County Medical Auxiliary at the World War Memorial. This was the annual meeting under direction of the Chairman on Public Relations. Club Women from Marion County were invited to attend. The topic for discussion was "Medical Problems with Relation to Defense."

(Continued on page xxiv)

For the Local Treatment of Acute Anterior

URETHRITIS

(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE *

Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae. (1) An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph. Gon. & Ven. Dis., 23, 201 (March) 1939.

*Silver Picrate, is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

A complete technique of treatment and literature will be sent upon request

JOHN WYETH & BROTHER, INCORPORATED, PHILA.

LABORATORY APPARATUS

Coors Porcelain Pyrex Glassware
R. & B. Calibrated Ware
Chemical Thermometers
Hydrometers Sphygmomanometers

J. T. Baker & Co.'s C.P. Chemicals
Stains and Reagents
Standard Solutions

• BIOLOGICALS •

Serums Bacterins Media
Antitoxins Vaccines Pollens

We are completely equipped, and solicit your inquiry for these lines as well as for Pharmaceuticals, Chemicals and Supplies, Surgical Instruments and Dressings.

The RUPP & BOWMAN CO.
319 SUPERIOR ST., TOLEDO, OHIO

THERE IS A DIFFERENCE

IN Rx SERVICE

You can depend on Blue Ribbon Rx Service

THE WHITE-HAINES OPTICAL CO.
INDIANAPOLIS and SOUTH BEND

(Continued from page xxii)

Only a few more weeks and the members of the Woman's Auxiliary to the American Medical Association will be arriving in Cleveland for their Annual Convention, June 2-6, 1941. Hotel Carter will be the headquarters. Requests for reservations should be sent immediately to Dr. Edward F. Kieger, Chairman of the Committee on Hotels and Housing, 1604 Terminal Tower Building, Cleveland, Ohio.

Dr. Mitchell gave a most enlightening and informing talk. He said "A war is in progress causing turmoil, destruction and distress in Europe. In this country there is a war going on to cause turmoil, destruction and distress in the medical profession. This war began in 1927 with the formation of the committee on the cost of medical care."

"National defense has created many problems for the doctor. The army medical service, for example, is responsible only for the care of men in the army. The A.M.A. is responsible for the civilians. After the army has exhausted the members of their reserve medical corps they will call upon the A.M.A. to furnish more doctors. How can the A.M.A. as an educational association tell any of its members to enter the army service?

"The selective service act is taking young men out of premedic work and work in medical schools. This act also allows the army to take more and more graduates of medical schools and internes. If this continues any length of time, there will be a definite shortage of physicians. At this time the defense program is asking for 5,000 doctors annually. That means that many physicians who have reached the retirement age and wish to cease active practice will be forced to continue in order to take care of their communities' needs.

"Members of the medical profession are examining the selectees without pay. They are doing a good job and always will meet any medical situation which is presented to them.

"The United States Public Health Service has a six-point program for local communities which need immediate action, especially if they are near a defense project or a training center. All of these are carried out through the local boards of health.

"1. Sanitation—e.g., water, sewage disposal, food, rodents, mosquitoes, eating places and communicable disease.

"2. Industrial Hygiene—accidents and care of same in industry.

"3. Venereal disease—syphilis, gonorrhea and prostitutes. Police and Boards of Health to aid in abolishing prostitution.

"4. Hospital and medical services. Each community needs 4.3 beds per thousand army men in these areas.

"5. Nutrition—everyone should have plenty of B Complex.

"6. Physical Fitness of youth—Athletics, recreation, etc., should be provided by the various communities. Congress has already passed a bill allowing $100,000 for this work."

INDIANA STATE BOARD OF HEALTH

Bureau of Communicable Diseases

MONTHLY REPORT, FEBRUARY 1941

Diseases	*Feb. 1941*	*Jan. 1941*	*Dec. 1940*	*Feb. 1940*	*Feb. 1939*
Tuberculosis	51	84	86	93	127
Chickenpox	538	422	459	274	500
Measles	1,107	277	99	26	44
Scarlet Fever	661	488	431	849	1,005
Smallpox	3	8	5	10	449
Typhoid Fever	7	8	10	15	11
Whooping Cough	85	81	59	149	101
Diphtheria	49	51	43	66	106
Influenza	412	1,547	1,422	1,115	1,490
Pneumonia	139	146	75	142	111
Mumps	209	132	132	495	264
Poliomeyelitis	1	5	11	1	3
Meningitis	3	3	1	1	2
Tularemia	3	9	46	6	7
Encephalitis	0	1	1	3	0
Undulant Fever	3	1	6	3	0

BOOKS RECEIVED

INTRODUCTION TO DERMATOLOGY. By Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S. (Edin.) Emeritus Professor of Dermatology, University of Kansas School of Medicine; and Richard L. Sutton, Jr., A.M., M.D., L.R.C.P. (Edin.), Assistant Professor of Dermatology, University of Kansas School of Medicine. Fourth Edition, 904 pages with 723 illustrations. Cloth. Price $9.00. C. V. Mosby Company, St. Louis, 1941.

* * * *

HEMORRHAGIC DISEASES—Photo-Electric Study of Blood Coagulability. By Kaare K. Nygaard, M.D., Former Fellow in Surgery, The Mayo Foundation; Former Assistant Surgeon, the University Clinic, Oslo; Fellow of the Alexander Malthe Foundation for Research in Medicine, Surgery and Gynecology. 320 pages with 59 illustrations. Cloth. Price $5.50. C. V. Mosby Company, St. Louis, 1941.

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled.

Write for general price list.
Chemists to the Medical Profession. IN 4-41

Zemmer
THE ZEMMER COMPANY
OAKLAND STATION
PITTSBURGH, PA.

Ninth Annual Intensive Postgraduate Course
INDIANA UNIVERSITY SCHOOL OF MEDICINE
April 28 to May 2, 1941

Hour	Monday	Tuesday	Wednesday	Thursday	Friday
Clinics 8:30 to 11:00	Registration Medicine Obstetrics Rectal	Medicine Heart Gynecology	Medicine Genito-Urinary Surgery	Medicine Pediatrics Ear, Nose and Throat	Medicine Skin Orthopedics
11:00 to 11:30	Diverticulosis of the Colon	Round Table on Chemo-Therapy	Round Table on Vitamins	Diagnostic Skin Clinic	Injured Joints in Industry
11:30 to 12:00	Recent Developments in Surgery of the Thyroid				Heat Stroke
12:00 to 1:00	*LUNCH*				
1:00 to 1:30	Pyelitis in Pregnancy	Psychiatry in War Times	Gases in Warfare	Round Table Diseases of the Urinary Tract	Diagnosis and Treatment of Traumatic Lesions of the Brain and Cord
1:30 to 2:00		Hemolytic Streptoccic Ulcers of Extremities	Intestinal Bleeding		Low Back Pain
2:00 to 2:30	New Ideas on Causes and Treatment of Cholecystitis	Hypertension	Diagnosis and Treatment of Blood Concentrations Resulting from Surgical Conditions	Poliomyelitis in 1940	Use of the Miller-Abbott Tube in Bowel Obstruction
2:30 to 3:00	2:30 to 2:40—Symptoms due to Prostatic Infection 2:40 to 2:50—Advantages and Limitations of New Methods 2:50 to 3:00—Treatment of Emergency Diseases of the External Genitals	The Heart in Military Service	Early Tuberculosis	Blood Dyscrasia in Children	Hemorrhagic Conditions in Children
3:00 to 3:30	Cancer of the Female Genitals	The Heart in Aviation	Continued Fevers	Vomiting in Infants and Children	Cancer of the Rectum
3:30 to 5:00	CLINICO-PATHOLOGICAL CONFERENCES WITH NATIONALLY PROMINENT SPEAKERS TAKING PART				
8:00 P. M	SPEAKERS OF NATIONAL PROMINENCE				

SUMMARY OF THE MEETING OF THE COUNCIL ON MEDICAL EDUCATION AND HOSPITALS AT CHICAGO FEB. 17 AND 18, 1941

This meeting was uncommonly well attended and the level and tempo of discussion were set by the opening address of the chairman of the Council, Dr. Wilbur, on "Some War Aspects of Medicine." The next four papers on the program were, "Universities and the People's Health," "The Challenge to Hospitals and the Changing Attitude Toward Them," "Adjustment of Medical Education to Social Demand," and "The Physician in the Selective Service."

These titles will give one an idea of the changing trends in medical thinking as well as the changing trends in the attitude of the people toward ourselves and our educational program.

On the day preceding the meeting of the Council on Medical Education and Hospitals, an entire day was spent in discussion of economic and educational problems in medicine especially with reference to graduate medicine. It may be of interest to the members of the Indiana State Medical Association to know that the Illinois State Medical Association is spending $1,000.00 a month for their program of continuing education in the state and that they have a full-time woman executive in charge of this work, together with several full-time assistants in her office. Iowa has a full-time woman executive in charge of continuing education in the state and this department is spending approximately $6,000.00 a year over and above the funds that are obtained from the various federal agencies. By comparison, the budget for continuing education in Indiana this year is $200.00 for the year.

During these three days of conference concerning the field of medical economics and the fields of medical education, both graduate and undergraduate, lengthy discussions as to the problems incurred by the Preparedness program, the disruption of the hospital service because of the expected lack of internes and residents, and the discussions concerning the absolute necessity for maintaining high standards of training for the oncoming medical men and women, one could indeed find much food for thought and the writer has filled an entire notebook with notes on the various subjects. It is certainly very necessary that the Indiana State Medical Association give more thought to the business of continuing education and also a great deal more thought to the changes that are so rapidly occurring in connection with all of our socio-economic relationships, if we are going to stay in line with other medical organizations. We must not forget that states like Michigan and Missouri and many others are meeting public demands for low cost medical care by organizations designed and staffed by their respective state medical associations.

HERMAN M. BAKER, M.D.

ADVERTISERS IN THIS ISSUE

Barry Allergy Laboratories, Detroit iv
Borden Company ..... 3rd cover
Cincinnati Sanitarium xvii
Commercial Announcements xiv
Cook County Graduate School, Chicago xviii
Holland-Rantos Company v
Home Lawn Sanitarium, Martinsville xvi
Hord's Sanitarium, Anchorage, Ky. xix
Indiana University Medical School ..... 4th cover
Indiana University Post Graduate Course xxv
Eli Lilly & Company, Indianapolis xx
Louisville Neuropathic Sanitarium, Louisville xvii
Luzier's, Inc., Kansas City, Mo. xxxviii
Maples Sanitarium, Saint Marys, Ohio xvii
McMillen Sanitarium, Columbus, Ohio xvii
Mead Johnson & Company, Evansville xiii
Medical Protective Co., Wheaton, Ill. xxi
Milwaukee Sanitarium, Wauwatosa, Wisc. ..... 4th cover
National Chewing Gum Mfrs. xxxviii
Neuronhurst—Fletcher's Sanitarium, Indianapolis xviii
Parke, Davis & Company, Detroit vii
Petrolagar Company, Chicago ..... 2nd cover
Philip Morris, New York xii
Physicians' Casualty Association, Omaha, Neb. xxi
Physicians' Directory xxvii
Piiman-Moore Company, Indianapolis xv
Plymouth Sanitarium, Plymouth, Ind. xix
Pogue School, Wheaton, Illinois xiv
Radium & Radon Corporation, Chicago xiv
Rupp & Bowman, Toledo, Ohio xxiii
S. M. A. Corporation, Chicago ix
South Bend Medical Laboratory xviii
Sterne Memorial Hospital, Indianapolis xviii
Stokes Hospital, Louisville, Ky. xv
Upjohn Company, Kalamazoo, Mich. iii
Waukesha Springs Sanitarium, Waukesha, Wisc. xvii
White-Haines Optical Co., Indianapolis xxiii
Winthrop Chemical, New York xi
Wyeth, John & Bro., Philadelphia xxiii
Zemmer Co., Pittsburgh xxvi

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 MAY, 1941 NUMBER 5

THE ACTIVITIES OF THE COMMITTEE ON CONSERVATION OF VISION

E. L. VAN BUSKIRK, M.D.*
LAFAYETTE

The first Committee on the Conservation of Vision in Indiana believed that if the incentive and request for a prevention of blindness campaign originated in the medical profession itself, it would be much more likely to be effective in securing the cooperation of physicians than if a social, public health, or welfare organization instituted it. The general practitioner can do more to save vision than any organized small group like oculists, school nurses, public welfare, social or public health workers. By the time these patients reach the welfare department they are like the cancer patient who comes to the cancer clinic—their condition is beyond help. The family doctor who thinks of conservation of vision sees ophthalmia neonatorum, squint, eye accidents, syphilis, glaucoma, infectious diseases, trachoma, and other eye diseases that take the largest toll of vision. Our efforts in the first year were to organize the medical profession into a visual conservation organization. Our program:

1. Ophthalmia neonatorum prophylaxis with adequate and uniform treatment.
2. Prevent, discover, and thoroughly treat syphilis.
3. Early detection of visual defects, squint and their prompt correction.
4. Regular, periodic, universal visual examination of school children; correct lighting in schools and sight-saving classes.
5. To prevent eye accidents in public and industry.
6. Education of the physicians, nurses, teachers, and public to the problems of visual conservation.
7. To institute a trachoma campaign.

Our program was started by forming local committees in county medical societies, articles in the State Journal, newspapers, exhibits at the annual convention of the State Medical Association and State Fair, and passage by the House of Delegates of three resolutions—one dealing with trachoma, one with a more adequate conservation of vision committee setup for five years, and one requesting the Board of Health to urge a better ophthalmia neonatorum law and campaign. These were but a few of the problems which we considered and weighed during our first year of conservation of vision activity.

In October, 1939, at the Fort Wayne meeting of the Indiana State Medical Association, the following resolution was introduced into the House of Delegates:

1. That the question on the birth certificate, "Were precautions taken against ophthalmia neonatorum?" be changed to read, "What preventive for ophthalmia neonatorum did you use? If none, state the reason."
2. That legislation should be enacted specifying that only a prophylactic agent approved by the Indiana State Board of Health shall be used.
3. That 1% (one per cent) silver nitrate be used in beeswax ampoules as a universal prophylactic agent for ophthalmia neonatorum at this time with the reservation that this recommendation may be changed in the future.
4. That the Indiana State Board of Health shall acquaint physicians, individuals and hospitals with this recommendation and see that it is uniformly easily available.
5. That the Indiana State Board of Health shall carry on a campaign of urging the prompt and early reporting of ophthalmia neonatorum as the law now specifies.

* Secretary, Committee on Conservation of Vision.

6. That the Indiana State Board of Health, through the local health officers, shall ask the prompt reporting of conjunctivitis of the new born from whatever organism, and shall have jurisdiction over these cases, in investigating and insuring adequate diagnosis and treatment until they are definitely classified as not being ophthalmia neonatorum. That investigation should be a direct responsibility of the Indiana State Board of Health and assured thereby.
7. That consultation with oculists be urged in these cases whenever such consultation is available. That provision be made for expert ophthalmological and nursing care whenever necessary and that these services be arranged without delay and be available also for similar emergency cases occurring at a later time.

This reolution was adopted by the House of Delegates and, at the meeting of the committee on February 15th, 1940, with Dr. J. W. Ferree, Secretary of the Indiana State Board of Health, it was decided to re-word the birth certificate as designated and that physicians would be encouraged to use 1% (one per cent) silver nitrate in beeswax ampoules as a prophylactic agent for ophthalmia neonatorum.

The incidence of ophthalmia neonatorum is entirely too high. Fifteen percent of the children in the blind school are blind from this disease. Two and one-half percent on the blind pension rolls in Indiana are blind from ophthalmia neonatorum. Very few of these cases are reported, yet in one city in Indiana of 100,000 population hospital records show at least ten such cases in the last five years. In order to stamp out this disease, these cases should be reported and adequate ophthalmological and nursing care should be available.

Eight per cent of the total blind pension roll in Indiana are blind from syphilis. The present syphilis program will do much to reduce this figure and Indiana physicians are urged to prevent, discover, and thoroughly treat syphilis. Prenatal blood Wassermans would do much to prevent interstitial keratitis and optic atrophy.

Trachoma was the largest single etiologic cause of blindness among the blind pensioners, accounting for ten per cent of the blindness. Practically all of the trachoma is in the southern Indiana counties. The Public Welfare Department is willing to cooperate with the medical profession in making available the names and addresses of every trachoma patient that they can locate. This is an infectious disease and, with the glowing reports of its treatment with sulfanilamide, these cases can be cured or at least arrested. The county medical society, through its membership, can get the cooperation of the health officer in seeing that these cases, like syphilis, are adequately treated.

The infectious diseases, ophthalmia neonatorum, syphilis, trachoma, and exanthematous diseases producing uveitis, account for thirty per cent of the blindness. These conditions are first seen by the general practitioner and with prompt ophthalmological and nursing care this source of blindness could be materially lessened.

In order to stimulate interest in the prevention of eye conditions caused by infectious diseases, the local County Committees on Conservation of Vision were asked to meet with the State Committee at a breakfast at the 1940 Indiana State Medical Association meeting at French Lick, with Dr. C. J. Rutherford, of Indianapolis, as chairman. This was a stimulating meeting, with a round-table discussion of the outlined problems. Much discussion was given to the detection and correction of refractive errors and strabismus, stressing the fact that all children should be examined periodically during the school years, in order to detect any visual defects, using a standard test such as the Snellen test type. Children with subnormal vision or ocular symptoms, such as redness of the eyeball or lid margins, should be referred to an eye physician for refraction, using a solution of atropine or scopolamine as a cycloplegic, and the proper correcting glasses should be prescribed. The suggested procedure for testing these children would be, first, during the kindergarten and first year of school, using the illiterate test type, and again during the third, fifth, and ninth grades. The committee should investigate the school rooms to determine whether or not there is proper lighting, both by daylight and by artificial illumination, and sight-saving classes should be formed for those pupils whose vision is less than 20/70. I believe the Gary school system should be especially commended for their cooperation in forming sight-saving classes. Pupils with vision of less than 20/200 should be admitted to the School for the Blind in order that they may learn the Braille system.

Dr. E. E. Holland, of Richmond, has been active in contacting industrial groups in order to promote proper safety measures in industry to prevent eye injuries. Eye injuries are the most costly single injuries in industry, both in cost of medical care and in compensation. Many industries are now making it mandatory that all employees in hazardous occupations wear goggles constantly and anyone entering the shop, even to pass through, must wear goggles.

The Department of Public Health Nursing of the Indiana State Board of Health conducted a very interesting institute for the Conservation of Eyesight for public health nurses at a meeting in March, 1939, at McCormick's Creek State Park, and adequately covered all phases of conservation of vision as outlined in our program.

The Indiana Council for Cooperation of Services for the Blind was formed in 1939. With Dr. Robert J. Masters, of Indianapolis, as a repre-

sentative from our committee, the Indiana Council and the State Department of Public Welfare have done all in their power to further the program initiated by the Indiana medical profession.

Dr. D. Hamilton Row, of Indianapolis, was delegated by the Committee on Conservation of Vision to present a resolution for the formation of a National Committee on Conservation of Vision to the House of Delegates of the American Medical Association at its meeting in New York in June, 1940. This resolution was adopted and a National Committee on Conservation of Vision was formed. It is proposed that the various state committees on Conservation of Vision meet with the National Committee at the next national meeting.

TWO IMPORTANT DEVELOPMENTS IN OPHTHALMOLOGY

ROBERT J. MASTERS, M.D.

INDIANAPOLIS

Most of us find interest in occasionally hearing about new developments in the branches of medical practice with which we do not have frequent contact. All of us attend our general medical societies to learn what "the other fellows" are discovering and accomplishing in their own special fields of medical endeavor. The purpose of this communication is to describe briefly two of the relatively recent developments in ophthalmology. One of these may be entirely new to the reader, while the other represents the utilization of sulfanilamide and its derivatives for treatment of the eye.

One of the most spectacular developments in ophthalmological practice has been the application of sulfanilamide and its derivatives to the treatment of trachoma and the severe, purulent types of conjunctivitis.

Trachoma is a sight-destroying eye disease. In our own State of Indiana, one-tenth of the recipients of pensions for the blind have lost their vision because of trachoma, which was either untreated or unresponsive to the older forms of treatment. Trachoma has always required a long, painstaking, and persistent course of local treatment to bring it to an arrested stage, even when the treatment has been instituted in the very early stages of the disease. W. G. Forster,* treating 428 children at the Whitemountain Apache Reservation and using the old, accepted methods, obtained arrest of the trachoma in 215 of the cases in from one to four years, with an average 2½-year course of treatment. Only one-half of the cases were arrested after a long, tedious course of treatment. He then undertook the treatment of 167 children with sulfanilamide, excluding all other forms of therapy. One-half grain of sulfanilamide per pound of body weight, in four divided doses, was given daily for twenty-one days. Thirty days after the beginning of this treatment, seventy-five per cent of the cases were arrested. The other 25% were given a second course, like the first, with resulting arrest of all of these cases after another thirty days. This remarkable result, with arrest in 100% of cases only sixty days after inception of treatment, is an example of the revolutionary effect which sulfanilamide has had upon the management and prognosis of trachoma. Similar reports have come from all of the ophthalmologists who have used this drug or its derivatives, with the exception of a few who probably have not continued its use over a sufficiently long period. Sulfanilamide offers an outlook that is hopeful almost beyond comprehension for the prevention of blindness due to trachoma. It should be added that even those patients who have a long-established trachoma and who are blind because of corneal scars, or uncomfortable because of scarred and deformed eyelids, have in many instances obtained some visual improvement or relief from discomfort after sulfanilamide treatment.

Gonorrheal ophthalmia, in adults and new-born children, has also heretofore been the cause of many eye tragedies and the bugbear of all ophthalmologists. Prior to the development of sulfanilamide and its derivatives, the writer has never seen an adult's eye, with established gonorrheal ophthalmitis, which has recovered with useful vision. Most of such eyes have been subjects for enucleation, after the devastating infection has run its course. Although the prognosis is somewhat better in the new-born, almost fifteen per cent of the children at our State School for the Blind are receiving their sightless education in that institution because of ophthalmia neonatorum. For the past two years our ophthalmic literature has contained many reports, from our own and foreign countries, of the prompt and complete recovery of gonorrheal ophthalmia after the administration of sulfanilamide or one of its modifications. Immediate reduction of the purulent discharge, and negative smears in an average of five days, have been the almost uniform results recorded in all of these reports. Words on paper lie rather flat, when they attempt adequately to express the importance of such results for these unfortunate patients.

In addition to trachomatous and gonorrheal conjunctivitis, that which is due to the pneumococcus,

* American Journal of Ophthalmology, May, 1940.

hemolytic streptococcus, staphylococcus and Koch-Weeks bacillus has also exhibited prompt response to the sulfanilamide group of drugs, but the first two are by far the most important to ophthalmologists. The drug is given internally, with the usual precautions employed to avoid toxic effects. Local application of the drug, in ointments or eye-drops, has much less and even doubtful effectiveness.

THE SLIT LAMP AND BIOMICROSCOPE

Another development of great value to the ophthalmologist is that of the slit-lamp and biomicroscope. Although this instrument was given to the profession only about twenty years ago, it has already become one of the indispensable ophthalmic instruments, along with the ophthalmoscope, perimeter, retinoscope, and tonometer. It has provided stereoscopic examination of the structures of the anterior eyeball segment (bulbar conjunctiva, cornea, aqueous humor, iris, crystalline lens and anterior vitreous humor), under the high magnification of a binocular microscope and the brilliant illumination of the slit-lamp. The instrument is generally called the slit-lamp, since it is this feature of it which has made possible the microscopic examination of the living eye.

The way in which the light from the slit-lamp does its work is spectacular, arresting the attention of all who see it in operation. There is no need to describe the optics of the lamp here. Suffice is to say that it produces a brilliant, sharply-focused slit or pencil beam of light, which cuts its way through the transparent structures of the anterior globe segment, literally slicing these structures into their component layers and clearly visualizing each layer in its respective relationship to the others. The epithelium, substantia propria and endothelium of the cornea, as well as the component layers of the crystalline lens, are as clearly seen as if the tissues were fixed and stained.

How can a brilliant beam of light bring about this sectioning of tissues? The principle of its operation is very simple. All tissues, even though transparent, resist the passage of light through them, reflect light from their surfaces and are rendered visible. The epithelium, substantia propria and endothelium of the cornea exhibit different degrees of resistance to the passage of light through them, and so are clearly defined by the difference in their respective brightness, as the slit beam of light traverses them. Similarly, the capsule, cortex and nucleus of the crystalline lens are distinguished by their characteristic brightness, and the normal aqueous humor appears black because it offers practically no resistance to the passage of light through it. Under the higher degrees of magnification, this same difference in visibility, or brightness, makes possible the definition of the cellular, fibrillary and nerve-fiber structures of the cornea, and the further subdivision of the crystalline lens into its component layers or zones of structure. Infiltrations or foreign bodies within the cornea, and opacities or foreign bodies within the crystalline lens are rendered visible, in the same manner as that which defines the various layers of these structures. By the same optical effect, the depth of these lesions or foreign bodies may be determined.

The binocular microscope furnishes the advantages of observation under high magnification, plus the stereoscopic, depth-revealing effect of binocular single vision. Depth perception, with resulting determination of the exact location of all things seen within the tissues, is thus furnished by the microscope as well as by the tissue-cutting effect of the slit-lamp beam.

The advantages of observation of the anterior eyeball segment, under high magnification, brilliant illumination and depth-revealing localization, are of great importance in many ways. Some of these are as follows:

(1) **Cornea.** The depth of corneal ulcers, together with any tendency for them to penetrate more deeply into the corneal substance, can be accurately seen. The depth of penetration of a surface foreign body can be accurately discovered, thus guiding the oculist in advising the patient about keeping the eye covered with a patch and returning for further observation. The depth of corneal infiltrations and vascularization can be seen, together with the absorption and recession of these processes. The existence of a penetrating wound, or the scar from a previous penetrating wound, may sometimes furnish the only visible proof that a foreign body has passed into the interior of the globe. Thickening and thinning of the cornea, or distortions in its curvature, may be accurately observed. Deposits upon the endothelial surface of the cornea can be definitely localized, and increase or decrease in their number quickly discovered.

(2) **Aqueous Humor.** In very early inflammation of the iris and cilary body there is an increase in the protein content of the aqueous humor, thereby rendering this fluid more resistant to the passage of light through it and therefore slightly more visible. The resulting picture is much like that presented by the passage of light from a motion picture projector through a smoke filled room. If the severity of the iridocyclitis increases, the presence of pus cells in the aqueous humor becomes apparent. They look like brightly illuminated specks within the dark aqueous fluid, and resemble dust particles floating in the light beam from a motion picture projector. These findings are of extreme importance in many ways, the most important of which is the early discovery of sympathetic inflammation in the fellow eye, after one eye has received a penetrating injury. By discovering the existence of an increased protein content in the aqueous humor, very early in the course of development of a sympathetic ophthalmitis, the offending injured eye can be removed before serious inflammation has developed in the sympathizing eye. It has been very correctly said that if

the slit-lamp accomplished nothing for the ophthalmologist but the early discovery of sympathetic ophthalmitis, it would pay for itself and make worthwhile the time and effort required to master its use. No other type of examination reveals a sympathetic inflammation as early as does this application of the slit-lamp microscope.

(3) **Iris.** Within this tissue may be found minute holes from penetrating foreign bodies, tears in the pupillary margin or elsewhere as a result of contusion, vascularization and atrophic changes in chronic iritis, in addition to many other changes too numerous to mention here.

(4) **Crystalline lens.** The presence of minute lens opacities, overlooked by other means of examination, can be discovered. The exact nature and location of lens opacities can be determined. It is thus possible to ascertain that some lens opacities are of congenital type, have been present throughout the patient's life and will exhibit little or no tendency to increase in size or density and thus decrease the visual acuity. It is also possible to exactly determine when the lens opacities are of a type which will grow and eventually develop into mature cataract, with resulting blindness of the eye. Even further than this, it can be discovered whether the progressive, growing opacities will be inclined to progress rapidly or slowly, thus making it possible to give the patient a reasonably accurate idea as to his outlook, so that he may make preparation well beforehand for the surgical removal of his cataractous lens when this procedure becomes necessary.

(5) **Vitreous humor.** While only the anterior portion of the vitreous humor is visible with the microscope, the examiner can discover within it the presence of pus cells, very early in the course of a sympathetic ophthalmitis or other type of uveal tract inflammation. By a difference in the color of the cells, exudate may be differentiated from hemorrhage in the vitreous humor. Degenerative changes and liquefaction accompanying high myopia of long standing, or following chronic intraocular inflammation, are easily discernible, thus putting the ophthalmic surgeon on guard when his patient is developing lens opacities and thus becoming a possible candidate for cataract extraction. Careful precautions, to avoid loss of vitreous during the removal of the cataract, are even more indicated in the presence of fluid vitreous than with the average cataract operation.

There are many other recent interesting developments in ophthalmology, such as the use of contact glasses to replace or supplement spectacles, the diagnosis and iseikonic lens correction of aniseikonia, modifications of surgical methods which have made the removal of cataract and the correction of strabismus safer and more precise in their execution. These subjects may be covered by the ophthalmologists in future papers for *The Journal*, provided the members of the profession express some interest in reading about them. If the readers of *The Journal* should desire communications regarding any or all of these subjects (couched in terms that are intelligible to medical men generally), they need only notify one of the members of the Editorial Board who will, no doubt, be glad to provide a discussion of them in some future issue.

THE EYE IN INDUSTRY*

E. O. ALVIS, M.D.
INDIANAPOLIS

This is too extensive a subject to be covered in all phases in a short period of time. Therefore, a few of the salient and most common types of eye injuries have been selected for discussion.

Nature has provided our eyes with a certain amount of protection by having them located in a strong, bony, orbital cavity, cushioned with fat and covered by movable eyelids that are able to close almost instantly when injury or harm is threatened. The most common injury to the eye is that which occurs to the cornea. This may be from foreign bodies composed of steel, rust, emery, cinders, sand, glass, wood and splinters, as well as many other types of metal that are used in industry. Our experiences show us that approximately 75 to 80 per cent of all eye injuries are received by the cornea. The size of an offending missile does not bear any relation to the severity or extent of the injury. The greater proportion of injuries resulting in the loss of vision are usually caused by very small objects. The most serious injury in so far as the impairment of vision is concerned is that which results from a very small foreign body that comes from the use of hand tools such as the hammer and chisel or hammer and punch. High speed machines, such as emery wheels, planers and lathes, usually do not impel the foreign body with the same amount of force as does a hammer. The most frequent penetrating foreign bodies result from the use of hand tools.

In taking a cross-section of all eye injuries in this country, the isolated workers and those employed in small plants have more frequent eye

* Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the French Lick session, October 30, 1940.

injuries than those who work in the larger industries. This is due primarily to the fact that the larger industries have trained their men to wear goggles and demand their use when hazardous work is being done. These same industries also provide protective shields and aprons on their high-speed machines. They also have good medical organizations and as soon as an injury is received, regardless of how trivial it may seem, the injured employee is at once sent to an eye physician. They will not permit their first aid men or their nurses to remove any foreign body about the eye unless it is fastened on the lashes or upon the palpebral conjunctiva. An important step, therefore, in conserving vision in industry is the education of the isolated workers, as well as the employers, in adequate protection for any possible hazardous employment. Neglect in treating an eye injury, even though that injury may be trivial, arises through the absence of proper medical facilities, especially among scattered and isolated workers. The most important of all is the immediate care, regardless of the type of injury. This applies specifically to eye burns from molten metal and chemicals, and particularly to caustic burns. Most all of us have seen preventable corneal ulcers with the resultant scars brought about by neglect of immediate treatment. This neglect may also increase the danger of infection and delay healing.

Pain and inflammation are not always dependable signs to indicate the seriousness of an injury. A very loosely adherent foreign body on the palpebral conjunctiva creates an extensive amount of pain and inflammation, while a foreign body that has penetrated the globe usually is not painful unless it is within the iris or ciliary body. Intra-ocular foreign bodies are often neglected because of the patient's lack of reporting that he has received an injury, and these foreign bodies may remain for an extended period of time without producing any inflammatory signs, and weeks later are diagnosed because the patient has noticed a change in his vision. The location within the eye, of course, governs the amount of time necessary for visual impairment to present itself. Corneal foreign bodies, particularly emery dust, may be received and described as a minor stinging, and many hours will pass before the initial signal of a foreign body, which is scratching, will be brought to the injured's attention. Should this foreign body be in the subepithelial layers, often its presence is not known until some ciliary injection with photophobia and pain occurs. These things frequently happen and three and four days pass without any attention being given. Examination of such an eye at that time usually shows the foreign body surrounded by an infiltration zone with signs and symptoms of iritis being present. In these cases delay is dangerous and many eyes have been impaired by the resultant ulcer and scar formation.

Corneal abrasions are very frequent and are easily diagnosed by the use of a corneal stain, fluorescein. If these are neglected and allowed to become infected, they often lead to ulcer formation. These minor injuries usually heal promptly when no infection is present and heal by primary intention. In caring for corneal abrasions, there is no specific treatment other than cleanliness and protection by a pad until the abrasion is completely healed. It is worthy of a few additional minutes of time when a corneal abrasion is found to study that eye carefully with the slit-lamp to see whether or not the missile that produced the abrasion merely bounced off the cornea or penetrated into the interior of the eye. The tract caused by a penetrating small object can usually be followed easily through the cornea with a slit-lamp.

Too much stress cannot be placed upon the contention that none except physicians should be permitted to examine and treat these corneal injuries. There are those among the laymen in each factory who boast of the fact that they have removed many foreign bodies from fellow-workers' eyes with toothpicks, match stems or any other implement handy and without the aid of an anesthetic. Such a procedure is preposterous. I do not believe that even a well-trained nurse should be permitted to remove a foreign body from the cornea. They are not sufficiently trained in the anatomy and physiology of the eye, and neither do they have a sense of depth perception to guide them in a foreign body dissection. I have seen the loss of one eye in each of two employees brought about by a fellow-worker who removed a foreign body in each case with a toothpick. In one case the cornea was perforated, and the eye was lost in each case from infection. I saw one other case in which an attempt was made to remove a piece of steel by a nurse, and the steel was pushed through the cornea and into the anterior chamber. It is proper for the nurse to instill into the eye a local anesthetic to give comfort and also antiseptics, and to cover the eye with an eye pad to keep the patient comfortable until he gets to the physician.

Foreign bodies in the cornea constitute the larger proportion of injuries, probably about 55 per cent. They are usually very superficial but at times they are found deep in the cornea and occasionally penetrate the endothelium. In all cases the foreign body should be removed promptly to prevent sloughing and ulceration of the surrounding tissue, which is nature's method of trying to accomplish the removal of a foreign body that has been undisturbed. Often following the extraction of a hot metallic foreign body, it is found that there is a layer of oxidized tissue remaining. This must be removed and I have found that a dental burr aids materially in this removal. It will, in addition, smooth out the surface and the rough sharp edges of the crater formed by the foreign body, adding greatly to the patient's comfort and eliminating a harbor for bacteria. It is my custom that following the removal of a foreign body, the eye is again irrigated, antiseptics instilled, and a snug eye patch

securely and comfortably placed with instructions not to remove the patch until at least twelve hours have elapsed.

I will not attempt to describe the removal of any one particular type of foreign body from the cornea because each case usually requires an individual technique, depending upon its location and the type of foreign body. The operation of removing the foreign body can usually be done with the average sharp pointed spud. The type of spud to be used is that with which the operator is best acquainted. I prefer the sharp spud because with it less tissue is traumatized. The first and most important part of the operation is to gain the patient's confidence and have him comfortably seated. Any type of anesthesia is permissible; my preference is for ½% pontocaine.

It is not always necessary to use a mydriatic or a cycloplegic unless there are already signs of ciliary injection or unless a great amount of difficulty was encountered in removing the foreign body from the cornea; in that event a mydriatic, usually 2% homatropine, is used, and on the second visit, if additional mydriasis or a cycloplegic is necessary, it is used. If the foreign body has been complicated by ulceration, or other corneal or iris pathology at the time of the first visit, the patient is instructed not to remove the dressing. Most foreign bodies, when they enter a cornea, are not contaminated by pyogenic organisms. The corneal infections that occur from foreign bodies are those that are present constantly in the conjunctival sac, on the lid margins, or those that are rubbed in by the patient's fingers during his attempts to rub the foreign body out.

Penetrating injuries to the cornea may be very severe, resulting in the loss of an eye. I think it is a good rule to follow that in all cases of corneal penetration, you have the eye examined with an x-ray to determine the presence or absence of an intra-ocular foreign body. We cannot be too careful in evaluating the importance of a penetrating corneal wound, even when the anterior chamber is not collapsed, when there is no hypemia, and when with the ophthalmoscope and slit-lamp we are unable to locate a foreign body or evidence of a foreign body having entered either the iris or the lens. It is the doctor's responsibility to have this eye x-rayed, not only for the patient's benefit, but it might save the doctor some embarrassment later. The diagnosis of a penetrating wound can be made by a visible laceration of the cornea and often very thin metallic foreign bodies leave almost imperceptible tracts. If there is a reduction of the intra-ocular tension, blood in the anterior chamber, a distortion of the shape of the iris and pupil, there is then undoubtedly a perforation. The larger part of these penetrating foreign bodies are sterile. However, infection is frequently carried in by them, resulting in a purulent inflammation of the anterior segment of the eye and inflammation of the posterior segment and vitreous, and there may even be a pan-ophthalmitis. I will not discuss the removal of intra-ocular foreign bodies but feel the importance of stating the necessity of determining at once whether a foreign body is present. Penetration of the cornea has happened by pieces of wire, pins, needles, and other small missiles without damage to other intra-ocular tissues. Even when a large foreign body has penetrated the cornea, a localizing x-ray examination is extremely important.

In these cases the severity of the injury is related to its location, the extent of the damage to the structures involved, and the very great danger of infection. Occasionally the lens may be injured by penetrating foreign bodies without producing a traumatic cataract. In all cases of penetration, large doses of foreign protein should be administered to avoid infection.

Lacerations of the cornea are not nearly so common as foreign bodies and burns. These lacerations should be treated surgically and aseptically. If the laceration is minor and there is no evidence of laceration of the iris or of a collapsed anterior chamber, usually surgical intervention is not necessary. If the anterior chamber has collapsed, it is only very rarely that we are successful in replacing the iris in the anterior chamber. In the event that it cannot be replaced, it should be stretched from the wound and excised as close to the wound as possible. Under surgical technique, a conjunctival flap should be dissected from the globe and completely cover the corneal laceration. The size and type of this flap should be left to the discrimination of the operator who will be guided by the necessity at the time, but the Van Lint is usually the choice. Some corneal lacerations often heal without a great loss of vision. However, a guarded prognosis should be given.

Burns of the cornea are to be looked upon with a great deal of respect and the prognosis should always be guarded. I will not attempt to discuss burns completely because that in itself is an extensive subject. Burns can be divided usually into those caused by acid or alkali, and of thermal origin. The various acids used in industry splash into the eye, creating an immediate pain and lacrymation. Chemical burns from an acid usually produce their own damage instantly and by the time the injured employee has reached the physician's office, the damage found by the physician at that time usually will not become any greater unless complications arise. In treating acid burns, the most important treatment is the immediate treatment that is usually given at the location of the accident, that is, washing the eye with water. By the time that he reaches the physician, the use of neutralizing solutions is usually not indicated. In the rural districts, cows' milk is often used for this purpose. There is no specific treatment for acid burns other than the possibility of a mild alkaline wash. The customary treatment in our community is keeping the eye comfortable with mild anesthetics in the

event that the corneal epithelium has been damaged. If the acid has been of a high concentration, often superficial layers of the mucosa have been destroyed, necessitating care for the first few days that a symblepharon does not occur. Should there be evidence of beginning adhesions between the bulbar and palpebral conjunctivas, these adhesions should be gently broken by the physician each day with a blunt instrument. Following this, the conjunctival sac should be well filled with a greasy substance in an effort to keep those surfaces apart. My favorite emollient for eye burns is the use of castor oil regularly every two hours. Should evidences of iritis present themselves, then this complication must be treated in the customary fashion. These patients are usually very grateful during the first two or three days of their burn for cold wet compresses over their eyes for ten or fifteen minute intervals every two hours. I prefer in my cases of eye burns from acid, alkali or thermal origin that the patient be placed in the hospital under the care of competent nurses.

Caustic burns of the eye are extremely serious. The activating agent often continues to do damage for three or four days after the physician feels that he has completely removed this aggressor. The chemical burrows itself into the corneal tissues and destroys deeply. If lime burns are gotten early, often excellent results are obtained by using a fresh 10 per cent neutral ammonium tartrate. General care of caustic burns is not very much different from those of acid origin, other than that a much graver prognosis is present. There is more chance of corneal infection in caustic burns than in either acid or thermal burns.

Thermal burns occur usually from hot chips of metal or from molten metal that is being poured into molds. Fortunately, most patients, when they see a large chip coming, instantly close their eyes and a great portion of the burn is received on the skin and margins of the lids. Occasionally, the lids are sealed together by this metal. Treatment of skin burns on the lids has been very successful with the use of some of the dyes such as gentian violet. The treatment of corneal burns from actual heat is, in its entirety, not any different than those burns that occur from acids and alkalies. The prognosis of a thermal burn, I think, is much better than that in an alkali burn.

Corneal ulcers that result from foreign bodies or from abrasions have received many types of treatment. The infective organism is the highly important factor. Streptococcus, staphylococcus, pneumococcus, pyocyanus and gonococcus are very virulent and have caused a lot of the ulcers with which we deal. The less virulent organisms that are constantly present in the conjunctival sac are dealt with much more successfully. The location of the ulcer on the cornea determines to a great extent the end result of our treatment. Ulcers located near the limbus heal more rapidly because they are nearer to their supply of nourishment. Ulcers immediately over or near the pupillary area of the cornea are more discouraging and it is difficult to obtain satisfactory results. The majority of corneal perforations from ulceration occur near the pupillary area of the cornea. Those small perforations that do occur near the limbus are almost immediately blocked by the prolapsed iris and much better results are secured.

A large number of corneal ulcers that heal, either with or without perforation, leave more or less scar formation. It has been my experience not to estimate visual impairment from corneal scars until at least six months have elapsed following the last sign of inflammation. Nature has provided that during the first few months following the cessation of all inflammatory signs, a large proportion of the scar is absorbed. These scars frequently produce a change in the contour of the cornea, necessitating an astigmatic correction. Various irritants have been used to aid in the absorption of these scars. These irritants are dionin in increasing strength, quinine bisulphate, yellow oxide of mercury and many others. I have observed that in many of these corneal scars where counter-irritants were not used, equally good results followed.

Non-penetrating injuries to the exposed portions of the conjunctiva and sclera and the infrequency of injuries to the conjunctiva alone are due to its loose attachment to the sclera. This allows the conjunctiva to give before an impact by sliding and stretching. The conjunctiva, however, occasionally does retain a foreign body which is easily removed. Infections rarely result from a retained conjunctival foreign body. Lacerations of the conjunctiva heal by primary intention and even the larger ones often do not require suturing.

A practice in my office is to chart the location of a corneal foreign body, injury, burn or scar, locating it according to the numbers on a clock dial and estimating in millimeters the distance in that position from either the limbus or pupillary center. This has often saved me embarrassment later if the patient returns with a scar from a subsequent injury and you find its location does not correspond to that of his former injury. Another important point is to keep accurate and detailed records of any other observed findings not related to the injury under treatment, and every industrial case, when dismissed, should have recorded his near and distant vision, with and without glasses. I usually do a brief ophthalmoscopic examination on each patient at the time of his dismissal. If any pathological changes are found, the patient is informed.

I have found that in these various types of corneal injuries, complicating factors that retard recovery were present in many of them. I refer particularly to focal infections. This applies chiefly to dental caries, as well as sinus and throat infections, prostate and colon infections. Of course, we are always on the lookout for a positive Wassermann. Local eye injuries have been charged with inciting a latent interstitial keratitis.

We have all dealt with a low grade protracted uveitis following a minor corneal injury and after failing to find a focus of infection, and by exclusion, decide there lies a tuberculous process in the ocular tissue. These diseases and not the minor injury produce the tissue damage. However, the Industrial Board rules that the minor injury was an aggravation and finds in favor of the plaintiff. This makes for a very discomforting situation.

Occasionally other diseases delay the healing process but, of course, we are interested only secondarily in those systemic diseases. So far as the industrial laws of this state are concerned, regardless of whether the employee has a focal infection or a systemic infection, the minor injury counts as an aggravating cause and is accepted as such by the Industrial Board. Eye accidents in this country average nine to ten per cent of all other accidents in industry. During the year 1937 in this country more than two million dollars was paid out as the result of eyes injured in industry. A survey of the causes that led to this great loss reveals the three principal and inter-dependent conditions that are responsible, namely, the use of hand tools; isolated employment; and neglect. Those who are doing industrial eye work can be of material help by supervising and administering local eye treatments and rendering valuable service by educating and training in the prevention of eye diseases and injuries.

Too much stress cannot be laid upon the importance of early care in all injuries, regardless of how trivial they may seem to be. We should not lose sight of the fact that every eye injury should be looked upon as potentially serious, no matter how trivial it may seem.

DISCUSSION

B. D. RAVDIN, M.D. (Evansville): I rise to compliment the author on his very fine paper. "Eye Injuries" is an interesting subject and hours could be spent in discussing our individual ways of handling such cases.

For years it has been my custom in all cases of foreign bodies of the eye, whether on the cornea or intraocular, to record the vision before anything further is done to the patient. Occasionally, the use of one drop of an anesthetic in the affected eye before taking the vision may cause the injured man to state that his vision was made worse following its use. To play safe, I think it is wise to record the vision first. Dr. Sidney Walker of Chicago has said that every man who comes into his office with an injured eye is considered a malingerer until he is proved otherwise. It is not always easy to apply the malingering test in every case; however, in doubtful cases it should be taken first.

I heartily endorse Dr. Alvis' recommendations of occlusion of all eyes where foreign bodies have been removed from the cornea. For years I have adopted this principle and I have yet to regret carrying this procedure out. When a man comes in with a history that he has been struck in the eye by some flying object, I feel that we should be most careful in the examination of this patient, especially where no foreign body is found on the cornea. In such cases every resource should be employed to determine whether or not there is an intraocular foreign body. The use of the slit-lamp, x-ray localization, etc., should be carried out in such cases.

Since the paper deals with ocular injuries and foreign bodies, I would like to ask the permission of the chairman to present a patient who had an interesting history of a penetrating eye injury and my method of management in this particular case.

This man sustained a penetrating injury to his right eye in July, 1938. He was taken care of in another community. His immediate complaint was loss of vision with considerable pain. No foreign body was found superficially or intraocularly. X-ray was negative. Ophthalmoscopic examination showed extensive intraocular hemorrhage. Subsequently, he developed a traumatic cataract. The insurance company had his cataractous lens removed by a competent ophthalmologist in northern Indiana. The results were not satisfactory and the man continued to have more or less constant disturbance in the injured and operated eye.

In May, 1939, I was requested by the insurance company to see him. My examination showed an eye suffering from a chronic iridocyclitis. I advised that the eye be removed. The patient would not agree to this recommendation. In the fall of 1939 this man sustained a second penetrating injury to his right eye. This accident happened while he had temporarily removed his goggles. How disastrous this would have been had the injury happened to his left eye!

At the 1939 meeting of the American Academy of Ophthalmology, many of you no doubt will recall the moving picture presented by Doctor Frank Burch showing his method of an evisceration of an eye with gold ball implantation and preservation of the cornea. This operation appealed to me very much and I felt that it was an admirable one for the patient I am presenting this afternoon. I recommended this procedure to this gentleman and he agreed to have the operation performed.

I present this case simply because I feel that it is the most ideal operation from the cosmetic standpoint that can be done on an eye where an evisceration is indicated. Of course, I do not mean to infer that this operation would be suitable in a case of panophthalmitis or sympathetic ophthalmia where an evisceration was contemplated.

C. E. GILLESPIE, M.D. (Seymour): I would like to ask this group how many use a bandage after removing a foreign body? How many do not? I did not know until now that Sidney Walker agreed with me. I was taught to use a bandage, a wet bandage, so there would be more pressure after

it was dry, and I did that for a long time. But I found the patient was more comfortable to leave the eye open and apply an anesthetic ointment. It has been my experience that the more pressure you put on the lid, the more irritation you will have in the wound when the eyeball is moved. I would like to hear some discussion about that.

E. W. DYAR, M.D. (Indianapolis): I would like to ask the opinion of the essayist as to the best manner in which deeply imbedded foreign bodies should be removed, referring, of course, to those which have penetrated as deeply as Descemet's membrane. Does he feel that an attempt should be made at an immediate removal, or should the foreign body be left in place for a space of time until a certain amount of surrounding tissue necrosis has taken place thereby facilitating the removal of the foreign body?

Another question: What is your opinion regarding double perforations of the eyeball, that is, those that penetrate both the posterior and the anterior tunics of the eyeball and have lodged within the orbit?

I would also like to ask Doctor Ravdin whether he feels that evisceration of the type which he has recommended is the procedure of choice in eyes which may have some likelihood of exciting a sympathetic ophthalmia.

Regarding patches, it is my feeling that they should be used following any injury which has caused a break in the corneal epithelium. This attitude on my part is strengthened because of the fact that on several occasions there have been cases under my care which have not responded well for several days when a patch was not used, but on each occasion the epithelimum has healed promptly following the use of an occlusive bandage.

H. C. KNAPP, M.D. (Huntingburg): I have discontinued the use of bandages.

It is important to immobilize the eye and to do this with a pressure bandage would cause severe pain. A loosely applied bandage will cause more or less pressure on the upper lid and if the uncovered eye is used, the bandaged eye will move under the closed lid and this will cause friction on the denuded cornea and this friction, in many cases, causes inflammation and ulcers.

I send my patients home and tell them to lie down and keep *both* eyes closed and I impress upon them the importance of keeping *both* eyes closed for twenty-four hours. In this way you can more nearly immobilize the eye than in any other procedure. Since I have followed this procedure, I have had bad results in only one patient.

B. W. EGAN, M.D. (Logansport): Regardless of what they say, Dr. Knapp, I do not think they always do it. I will protect myself by putting on a patch or a bandage in every case.

E. O. ALVIS, M.D. (closing): I want to thank the discussants, and I will try to answer their questions.

Concerning the use of a patch or a bandage as discussed by Dr. Knapp, I feel that if there is an abrasion of the cornea, a patch should be used. In every case following the removal of a foreign body from the cornea, I used it. Abrasions left after the removal of a foreign body are susceptible to infection. This is particularly true because the itching of the eye that follows the use of a local anesthetic often prompts the patient to rub this eye with his fingers. If the patch does not do any good, at least the doctor is protecting himself by using it. Another thing that I do is to use White's ointment in the eye before the patch is applied and after the eye is irrigated, following the removal of a foreign body. I prefer an ointment base because I believe that the greasy paste holds the antiseptic in the conjunctival sac longer than when an aqueous antiseptic is used. As far as the patient is concerned, he might or might not be more comfortable with the bandage off, but I think that it is safer with the bandage.

In answering Dr. Dyar, I can recall one case where a foreign body remaining for a period of time within the cornea sloughed out and the ultimate result was satisfactory. As to Dr. Dyar's other question, concerning a foreign body that penetrates the globe, and lies within the orbit, I do not attempt to remove the orbital foreign body. I leave it alone.

ABSTRACT

DANGER OF EYE INJURIES FROM BLASTING CAPS

Calling attention to the fact that blasting caps and detonating fuses are dangerous playthings for children and may cause blindness or serious eye injuries, a warning to parents concerning this hazard was issued recently by Mrs. Eleanor Brown Merrill, Executive Director of the National Society for the Prevention of Blindness.

"More than 150 juvenile casualties of this kind, including 24 eye injuries, were reported last year by the Institute of Makers of Explosives," said Mrs. Merrill. "The National Society for the Prevention of Blindness is glad to cooperate with the Institute in its educational campaign to reduce the number of these tragedies.

"The great majority of such accidents to children take place either in rural localities or near small towns, and about 90 per cent of the victims are boys. Farmers, construction forces, mine workers and railway men who use explosives can help save children from death and serious injury by storing blasting caps and fuses under lock and key, and by being careful not to discard such caps where children can get them."

TRACHOMA

NOEL S. McBRIDE, M.D.
TERRE HAUTE

The Committee for the Conservation of Vision of the Indiana State Medical Association has collaborated with the State Board of Health to formulate a program for the eventual eradication of trachoma in our state. The general practitioners are the key men in the drive against this disease in Indiana. It is necessary for all physicians, general and specialist, who treat inflammations of the eye, to be alert to the possibility of trachoma in every case of conjunctivitis. Unless trachoma is considered, many undetected cases will reach advanced stages with complications that impair or destroy vision, and meanwhile they may have unwittingly infected other individuals who in turn act as sources of infection.

Touching lightly on the historical phase of trachoma, we learn from the tombs of Egypt that it was treated at least as long ago as the nineteenth century before Christ. Through the intervening ages it has spread to all countries of the world, following the paths of adventure, conquest, trade, and migration.

The countries of Europe experienced severe epidemics of trachoma in the early nineteenth century with the return of the Napoleonic armies from Egypt. The soldiers disseminated the disease among the civilian populations as soon as they left the armies because it was not then recognized to be contagious. Great numbers of these people came to America, and many struck out for the West by way of the Daniel Boone trail, settling in the area which became our "trachoma belt." This section includes the states from West Virginia to Kansas and Oklahoma and, of particular interest to us, includes the counties in the southern half of Indiana.

Rigid inspection of immigrants was not practised until the end of the nineteenth century, and by that time our trachoma problem was fixed upon us. Dr. Harry S. Gradle has estimated that there are in the United States 25,000 cases of trachoma among the Indians and 33,800 cases among the rest of our population. Dr. C. W. Rutherford, supervising ophthalmologist of the State Department of Public Welfare, has pointed out that about ten per cent of the recipients of assistance for the blind have become eligible for aid due to the ravages of trachoma. This represents a financial burden to the public. But if we consider the misery and hopelessness of those afflicted by this disease, we have an even greater stimulus in our effort to find, treat, and eradicate all new cases of trachoma as they occur in Indiana.

The infective agent of trachoma has not been definitely isolated. Many bacteria have been suspected, but none has been accepted. The absence of a specific bacterium suggests a virus, possibly the elementary bodies of Lindner, found in epithelial cell inclusions (Prowazek bodies).

It is generally agreed that trachoma is a contagious disease except during its later stage of cicatrization. The means of transmission is through contact with trachomatous secretion by the hands, towels, and other articles of toilet. The most important accessory factor in the etiology is intimacy of personal contact, either the intimacy of institutionalism or that of poverty with its filth and squalid crowding.

The diagnosis of trachoma is very difficult during the early weeks of infection. Unless there is a history of contact with a known case, the physician can only suspect the presence of this disease. Generally it is four to six weeks after the onset before the conjunctival changes become sufficiently characteristic to assure us of a diagnosis; any case of conjunctivitis whose duration is that long should arouse a suspicion of this disease.

We should bear in mind that every case of slight conjunctivitis may be beginning trachoma. Usually the patient complains of sensitivity to light, excessive flow of tears, spasm of the lids with the sensation of a foreign body, and occasionally of pain. There is little purulent discharge. The conjunctivae of the lids and bulb are somewhat inflamed and swollen, followed in a few days by thickening in the cul-de-sacs. Small follicles may appear in the conjunctiva covering the upper tarsus, and the individual vessels become hidden within the inflamed and swollen tissue.

At this time an ophthalmologist using a corneal miscroscope might be able to clinch the diagnosis by discovering the earliest evidence of corneal pannus; that is, the superficial roughness of the cornea which lies under the upper lid, caused by infiltration and beginning vascularization. The laboratory might also assist by identifying the epithelial inclusion bodies of Prowazek.

In the absence of these facilities for examination, the diagnosis can be made by the gross appearance of inflamed and thickened palpebral conjunctiva with many papillae and follicles which give it a rough surface. These findings are especially prominent in the upper cul-de-sac and can be seen upon everting the lid by means of a hooked instrument, and thereby further exposing the infiltrated folds of the cul-de-sac.

As the disease progresses, a moderate ptosis and drooping of the outer portion of the upper lid border may appear. This stage of the infection may continue for a year or more before scar formation becomes evident. Fine white striae appear in the tarsal conjunctiva, and a scar develops in the

linear depression on the posterior surface near the lid margin. Ultimately the tarsal surface becomes glistening, smooth, and pale and the tarsal plate frequently is bowed from scar contraction, causing an inversion of the lid margin known as entropion. Meanwhile the cornea has suffered from invasions by pannus and ulcers.

It is now believed that pannus begins at a very early stage of infection, but it becomes grossly visible only after a variable period of two months to several years. As mentioned earlier, it is a superficial keratitis associated with vascular and lymphocytic infiltration, beginning at the upper corneal margin and slowly progressing toward the pupillary area or even over the entire cornea in some cases. Ulcers are prone to develop along the advancing margin of the pannus, and although they rarely perforate the cornea, they leave depressions, Herbert's pits, on its surface which seriously interfere with vision. As the infection subsides, a thin layer of scar tissue is left behind which further interferes with vision, varying with the extent and density of the pannus and ulcerations.

The last stage of trachoma leaves the unfortunate patient with sensitive eyes and usually a great loss of vision. Cicatricial tissue in the upper cul-de-sac may close the ducts from the lacrimal glands and destroy the accessory tear glands, leading to a dry eye and the resulting condition of xerophthalmos. Buckling of the tarsal plate causes entropion and frequently inversion of the lashes which is known as trichiasis. The only remedy for this condition is a surgical procedure and but little restoration of sight can be expected in cases of established damage.

The differential diagnosis is nearly impossible during the first few weeks but is relatively easy in the late stages. Finding the specific organisms for other acute conjunctivitides such as the pneumococcus, the gonococcus, and the Koch-Weeks bacillus, assists in the diagnosis but does not entirely exclude trachoma because it may co-exist with other infections. Follicular conjunctivitis and swimming pool conjunctivitis are the two diseases most difficult to differentiate from trachoma.

Follicular conjunctivitis may be acute or chronic, the latter form lasting for one or two years. The follicles are small, discrete, arranged in bead-like rows, located principally in the lower lid with a smaller number along the border of the upper tarsus. This differs from trachoma which has larger, confluent, irregularly arranged follicles lying principally on the upper lid and in the cul-de-sac. Pannus does not exist, nor are the Prowazek inclusion bodies present in follicular conjunctivitis.

Swimming pool conjunctivitis appears three or four days after bathing in a contaminated pool and is characterized by slight swelling of the lids, a painless preauricular gland swelling, photophobia, mild conjunctival inflammation, and in a week or ten days the appearance of closely packed follicles. The inflammation subsides rapidly and disappears in about three weeks. The follicles slowly disappear. Prowazek bodies may be found, but pannus is never present. Neither of these infections causes scarring of the conjunctiva.

Vernal conjunctivitis of the palpebral type may be confused with trachoma, but a history of severe itching of the eyes can always be obtained. It is a perennial conjunctivitis which appears during warm weather and is characterized by broad flat papillae of the tarsal conjunctiva, covered by a bluish-white film which can be rubbed away as a stringy tenacious mucus. Eosinophiles abound in the secretion, but are absent in trachoma.

The prognosis of trachoma was a gloomy one indeed before the introduction of sulfonamide drugs. It was said that the disease began in obscurity and ended in the grave. We now may feel sure that adequate treatment when begun early will arrest the infection long before the patient's demise.

Prior to 1937 most authorities relied upon copper sulphate locally applied over a long period of time. This remedy was employed by the Egyptians, Greeks, and Romans. As recently as 1936 Lindner stated that every trachoma case which is treated with the copper sulphate stick daily from the onset of the disease will be cured in time. Other forms of therapy too numerous to mention have been tried and advocated, but only a few have survived the test of time. Grattage or the superficial scarification of the trachomatous follicles proved beneficial. Expression of the follicles by Knapp's roller forceps shortened treatment and prevented many complications. Stationary pannus has been benefited by daily massage with irritating ointments such as yellow mercuric oxide 3 per cent to 8 per cent.

In 1937 Heinemann reported the successful treatment of three trachoma cases with sulfanilamide. He described the results as "brilliant" and thereby opened a subject which has stimulated many writers to controversial opinions. Loe reported in June, 1938, the successful use of sulfanilamide in 140 cases of trachoma among American Indians. During 1939 the Indian Medical Service undertook an extensive campaign of sulfanilamide treatment on 959 patients. Their reports indicated that within three weeks of treatment 43 per cent of the cases were arrested and 50 per cent were improved, while later examination disclosed 55.7 per cent to have become arrested, indicating a continued benefit even after discontinuance of the drug. There have been many favorable reports on chemotherapy in trachoma and some which were critical. Smith reported no change in 50 per cent of the cases treated, and Cooper reported recurrences of infection in a high percentage of the arrested cases. By and large, however, the reports indicate that in the sulfonamide drugs we have the most valuable therapeutic agent that has yet been advanced for trachoma.

The favorable effects of sulfanilamide are first observed on the subjective symptoms. Within a week most of the patients are relieved of the tear-

ing, light sensitivity, spasm, pain, and feeling as of a foreign body in the eye. Objective improvement is slower, but the congestion subsides during the first week in most cases. The cornea shows early improvement in the superficial trachomatous process. The calibre of the corneal vessels narrows and the spaces between them become clearer. Any scarring that is present remains, but the infiltrates disappear rapidly. Follicles and papillae begin to disappear in ten to fourteen days with smoothing out of the tarsal conjunctiva, and the individual blood-vessels are restored to visibility. Follicles remain in the upper cul-de-sac for many weeks. But the progress of trachoma is definitely checked within two or three weeks and such reparative processes as are possible make their appearance. Of course, connective tissue and scars remain and are not affected by the drug.

Sulfanilamide has been used in varying dosages, but the one that has been most generally accepted is that advocated by Loe, namely, one-third grain per pound of body weight, daily for ten days, then one-fourth grain per pound for fourteen days, always with an equal amount of sodium bicarbonate. This may be increased or decreased in certain cases depending on the response and also on the appearance of toxic symptoms. The rather frequent occurrence of dizziness and nausea are mild evidences of toxicity; the development of anemia or neutropenia must be carefully avoided whenever sulfanilamide is administered.

From the public health view point, sulfanilamide therapy is of great value. The drug eliminates the conjunctival discharge and the tearing within a few days. This reduces the danger of spreading the disease since trachoma is most contagious when there is profuse lacrimation and discharge. In addition, patients will favor such a painless and effective treatment, in contrast to the prolonged agonizing treatment with copper sulphate which often drove them away from the dispensaries. Furthermore, the use of this drug offers a chance to restore infected individuals to useful lives rather than the prospect of receiving monthly assistance from the Department of Public Welfare.

To accomplish our aim of eradicating trachoma from Indiana it is necessary for all of us to be trachoma-conscious. Prompt diagnosis and immediate effective treatment with the sulfonamide drugs and other accessory measures will reduce the frequency of the disease and prevent the disastrous effects of old trachoma.

Finally, it should be remembered that trachoma is a contagious disease, and as such it must be reported to the State Board of Health.

GLAUCOMA

ASSOCIATED HEADACHES

C. P. CLARK, M.D.
INDIANAPOLIS

Glaucoma, or hardening of the eyeball, is a disease of the eye of unknown etiology which causes about one-third of all blindness occurring after the age of forty. Glaucoma cannot be prevented with certainty, but a large number of the unfortunate victims can be spared the worst effects of the disease, blindness and intense ceaseless pain, if the disease is recognized and controlled early in its course. To do so, one must know about the dangers and recognize the warnings.

The onset of glaucoma is always insidious. Simple glaucoma, or non-inflammatory glaucoma, presents no outward change in the appearance of the eye to the inexperienced examiner. There may be little or no pain. Central vision, the person's ability to see straight ahead, may show very little or no impairment, but the limits of the visual field become gradually narrowed until the field is seriously contracted before the individual realizes that any loss of vision has occurred. At this time the slight difficulty with central vision usually is interpreted by an inexperienced or careless examiner as a need for different spectacles. The patient with unrecognized simple glaucoma often times has obtained a new pair of spectacles every few months when the real cause of the trouble was elevated intraocular pressure and the attendant ocular tissue changes. A healthy person with a normal eye does not need frequent changes of spectacles when properly examined. The examiner should determine the ocular tension for all persons who are thirty or past when he makes an examination for glasses, whether or not he has suspected the presence of glaucoma.

The patient who suffers with non-inflammatory glaucoma usually has some pain which is interpreted as due to some other physical disorder, such as a cold in the head, sinusitis, an upset stomach, or eyestrain. Many of them take aspirin or other coal tar drugs in quantities to obtain relief, or they become the victims of various and sundry advertisements for the relief of headache, including store spectacles for eyestrain. The eyeache or headache continues. The dimness creeps in toward the center of the field of vision and the area of the field becomes less and less. The loss is greater and occurs more rapidly on the nasal side of the field. This

may not be observed, due to the over-lapping of the fields of the two eyes. This process may continue until the vision of the eye is almost destroyed, or it may be transformed into a different form of glaucoma, the acute congestive or inflammatory type.

Acute glaucoma is deceptive as to the cause of the pain and the approaching blindness. The individual experiences several moderately severe attacks that are thought to be bilious headaches wherein there is severe head pain, nausea, vomiting, reddened eyes and blurred vision. The congested eyes and blurred vision are considered to result from the physical efforts of vomiting. The administration of morphine relieves the pain and terminates the attack. The action of morphine in that it constricts the pupils, the miotic effect, is the modus operandi of the drug in this case and not so much the power of relieving pain that is effective. The attack passes off and the eye recovers almost its former vision, but is never quite as good as before the attack occurred. This is shown by studies of the visual field and the central vision. The patient seldom notices the reduction of the field until the loss is extensive and also considers that the central visual changes require another trip to the advertising counter for new spectacles. There is a feeling of relief and the attack is forgotten.

After several moderately severe attacks there comes one that is more severe than all the preceding ones. Vision is reduced to light perception or is abolished. Examination of the eye or eyes, since both are involved, usually one more severely than the other, discloses inflamed, stony hard eyeballs, steamy corneas, expanded pupils and unbearable head and eye pain. An operation upon the eye, an iridectomy, is necessary to reduce the pressure, relieve the pain and to regain whatever remnant of vision is recoverable. This is a grave situation. The patient is unprepared for the surgical emergency and the operation must be conducted under conditions that are unfavorable. If the diagnosis had been made before the onset of acute glaucoma, the prognosis for useful vision afterward would be far better.

The care of the patient with glaucoma consists first in early recognition of the disease, then in proper vigorous medical and possibly surgical procedures to keep the ocular pressure within safe limits. Recognition of the disease requires that not only should physicians who limit their practices to diseases of the eye be glaucoma conscious, but that general practitioners in particular should be cognizant of the signs and symptoms of glaucoma.

I have mentioned the changes in the visual field and mistiness of central vision in non-inflammatory or simple glaucoma, head pain which frequently is misinterpreted as a symptom of some other condition, and should add that there may be rainbow rings about lights, difficulty in reading for any length of time, and unusually large pupils.

Preceding the onset of a severe attack of congestive or acute glaucoma, the eyes are observed to be redder than usual, the pupils are somewhat enlarged and do not contract readily when suddenly exposed to strong light. The individual is sensitive to bright light and sunlight and is plagued with many headaches. There is inability to read well or for any length of time. These symptoms pass into those of the severe acute attack with pain, vomiting, and serious reduction of vision.

Medical measures to reduce and control the elevated ocular pressure consists in the use of various drugs which contract the pupil and thereby open the drainage angle of the eye. These drugs must be carefully selected and the strength of the drug and frequency of its use supervised by one who is expert in the care of diseased eyes. Many patients who have glaucoma can be protected for years by the intelligent use of miotic drugs. If the disease shows progress in spite of drugs or has become advanced before the patient came under the physician's supervision, then the proper treatment is a skillfully performed operation to establish a new drainage channel for the eye. Such operations are performed throughout the world in large number and show a high percentage of success.

The ocular pressure may become elevated above the normal limit as a complication of some other ocular disease and is then known as secondary glaucoma. No discussion of this has been attempted, because the subject matter has been limited intentionally to idiopathic forms, non-inflammatory and acute.

One must not lose sight of the fact that the eye may be inflamed from various diseases besides glaucoma, particularly iritis. The physician should never use atropine or any other drug that expands the pupil until he has determined that the ocular pressure is not elevated above normal limits. When in doubt, do not use any mydriatic drug. It means a disaster for a patient to be treated with atropine for iritis when in reality glaucoma is present. After that time the eye is doomed to blindness, and the patient is compelled to suffer ceaseless pain unless relieved by enucleation of the eyeball.

Glaucoma untreated or uncontrolled leads to blindness from which there is no hope of recovery. Most of these unfortunate persons can be spared blindness and suffering if treated early. A periodic examination of the eye is an intelligent application of our knowledge to reduce the incidences of blindness from glaucoma. The examiner should be medically trained and should be a licensed physician with more interest in his fellow men than in the sale of spectacles. Vision is priceless. Guard it. Protect it.

THE AMERICAN BOARD

FRED McK. RUBY, M.D.
UNION CITY

When one physician meets another physician, especially if interested in the same line of work, the first thought of each should be, "Wonder if he is certified by 'our board'?" In other words, if he *has* been so certified, it is proof positive that he is recognized by his fellow specialists as having done everything possible to qualify himself to act intelligently in the practice of that specialty. (Right here let me point out that every single law or ruling recommended by the medical profession puts more responsibility on the very men who seek the ruling. Like the Harrison Narcotic License, it protects the public at the expense of the physicians who set up the protection.) These Boards—now twelve or fourteen in number—all have followed the first board put in operation in 1916, our own American Board of Ophthalmology. The very evident value of this board in raising the standard of ophthalmic medicine and surgery, as well as the very rapid and easily recognized growth of the number of registrants, has largely been instrumental in the establishment of thirteen other boards to clear their own specialty of untrained men.

A NOTE TO LAYMEN!

A certain foundry in our State of Indiana appointed an osteopath with some *six weeks* training in some Chicago institution, to be their ophthalmic surgeon,—when their own employees were required to have some *five years* training to be "on their own" in the plant. You can see why we specialists, we medical men who have met the test of the Boards covering our specialty—wonder if Industry doesn't make other mistakes, too!

These facts being so, the result is that all young specialists realize they are "all set" with their American Board certificates. The lack of such a certificate in the office of any specialist means that: (1) he is *not* adequately prepared to be a specialist, or (2) he is too careless to desire such certificate.

Finally, when any ophthalmologist wishes to refer a patient to some other physician in a new location, he may look in his directory of certified boards, because he can "Be Sure With An American Board Certificate."

Mark your calendar now—

ANNUAL CONVENTION, INDIANA STATE MEDICAL ASSOCIATION, INDIANAPOLIS

SEPTEMBER 24, 25, and 26, 1941

THE SIGNIFICANCE OF BLOOD EOSINOPHILIA IN A GROUP OF AMBULATORY PATIENTS

BENNETT KRAFT, M.D.
INDIANAPOLIS

While the life history and function of the neutrophilic leukocyte are generally matters of agreement, the life history of the eosinophile cell, its place in the defensive mechanism of the body, as well as its diagnostic significance, are still debated.

The present survey was undertaken to determine, if possible, the significance of blood eosinophilia among the out-patients attending the various clinics of the Indianapolis City Hospital. This was possible since the laboratory for the out-patient clinics keeps a record of the consecutive blood counts done. The problem was to select the cases showing a differential count of nine per cent eosinophiles or more, and to study their case histories. Nine per cent was arbitrarily chosen in order to leave an ample margin of deviation from the normal hourly and daily fluctuation of 0-4 per cent. Of forty-four hundred blood counts examined, two hundred showed an eosinophile count of nine per cent or more. Upon reviewing the hospital records of these two hundred patients, the following observations were made:

116 or 58%	Asthma, Hayfever, Perennial vasomotor rhinitis
8 or 4%	Bronchitis
8 or 4%	Syphilis
6 or 3%	Convulsive seizures—Epilepsy
5 or 2½%	Dermatoses
5 or 2½%	Parasitic infestation
5 or 2½%	Chronic cholecystitis
2 or 1%	Rheumatic heart disease
2 or 1%	Lymphogranuloma inguinale
2 or 1%	Carcinoma
2 or 1%	Bilateral cataracts
2 or 1%	Hodgkin's Disease
1 or ½%	Periarteritis Nodosa
1 or ½%	Hypertrophic Arthritis
1 or ½%	T.B. Peritonitis
1 or ½%	Hemorrhage in temporal region of right eye
33 or 16½%	Undiagnosed

Some of the complaints in the undiagnosed group were as follows:

Vomiting and epigastric pain in four cases.

Itching and burning of eyes in two cases.

Edema of eye-lids in two cases (ages 4 and 7, respectively).

Recurrent fever, nausea, vomiting in three cases (ages 7, 9, and 13, respectively).

Loss of weight, nervousness, and weakness in six cases.

Space will not permit tabulation of the symptomatology of the remaining sixteen patients.

A review of the literature reveals the following opinions regarding the life history and the place of the eosinophile in the defensive mechanism of

the body. Ehrlich[1] believed that all the eosinophiles were formed and multiplied in the bone marrow, and were released from there into the circulating blood as a distinct type of cell. Later Brown[2] thought that the characteristic granules were toxic substances absorbed by the neutrophiles. Opie,[3] in 1904, after studying the eosinophiles in guinea pigs, reported that they are normally present in the intestinal mucosa, in the walls of the tracheae and bronchi, and in the interalveolar walls outside the capillaries.

Coates and Ersner[4] in 1930 considered the eosinophile a factor in all inflammations irritative rather than infective in character.

Bezancon and Bernard[5] in 1930 regarded the eosinophile as a connective tissue cell which is associated with the repair that takes place at the site of injury. They thought that local eosinophilia occurs first at the site of the reaction and blood eosinophilia takes place secondarily.

Code and MacDonald's[6] examination of the blood of patients suffering from various blood diseases showed the highest histamine value to be found in the blood of patients with myeloid leukemia in which there is a large increase in eosinophiles.

Biggart[7] used various proteins and protein derivative and showed that while proteins, such as egg albumin, horse serum, and casein produce an eosinophilia, proteoses and aminoacids do not. Biggart came to the conclusion that the eosinophile cell is related in some way to protein metabolism since no eosinophiles can be found in the mucosa of the alimentary tract of fetal or starved animals, yet can be easily demonstrated there during digestion. He cites Rous[8] who indicated that the lymph in the thoracic duct shows a large increase in eosinophile cells during digestion, and that this is still further increased as more and more protein is added to the diet. The fact that protein is chemiotactic for eosinophiles suggests that in some way they are of use to the organism in endeavoring to protect it against protein. The manner in which they deal with parenteral protein is not clear, but Loele has shown that the phenophilic substance can, when dissolved with certain intracellular acids, dissolve *albumin*.

Kirk[9] states that if eosinophilia was the result merely of chemiotaxis there would be a quantitative relationship between the active agent and the eosinophilia. He has not been able to find this correlation.

Ishihari,[10] after many experiments came to the conclusion that certain tissue irritations produce an eosinotactic substance which in turn stimulates the eosinophilic myelocyte of the bone marrow. He thinks that the vagus, as well as the nerves passing through the medulla, play a great role in the formation of this substance.

In perusing the literature, one finds the following conditions as being associated with a blood eosinophilia:

1. **Parasitic Infestations**
   a. Trichinae
   b. Entamoeba Histolitica
   c. Echinococcus
   d. Ascaris, Taenia, Oxyuris
2. **Allergic Reactions**
   A. **Non-Granulomatous Allergies**
      a. Asthma
      b. Hay Fever
      c. Certain Dermatoses
      d. Periarteritis Nodosa
   B. **Granulomatous Allergies**
      a. Syphilis
      b. Lymphogranuloma Inguinale
      c. Tuberculosis
      d. Rheumatic Heart Disease
3. Leukemia. Hodgkins. Malignant Tumor.

Experimentally, the following procedures have been reported to produce a blood eosinophilia:

1. Injection of foreign protein
2. Raw liver diet
3. Insulin
4. Nirvanol
5. Pilocarpine
6. Vagus stimulation
7. Asphyxia
8. Artificial raising of CO_2 content of blood.

SUMMARY

1. Two hundred blood counts with an eosinophilia of nine per cent, or more, are reviewed and the findings agree with reports of other investigators.

2. There is ample opportunity in the cases reviewed for protein to enter the circulation. However, since the tissues of various organs have at their disposition only a limited number of responses to a large number of different stimuli, monoetiologic concepts for physiologic responses are not feasible. The physiological response of eosinophilia seems to be produced in more than one way.

[1] Ehrlich, P.: Methodologische Beitrage zur Physiologie und Pathologie der verschiedenen Formen der Leukocyten, *Ztsch. f. Klin. Med.* I, 553, 1880.

[2] Brown, T. R.: Studies on Trichinosis. *Bull. Johns Hopkins.* 8: 79, 1897.

[3] Opie, Eugene L.: The occurrence of cells with eosinophilic granulations and their relation to nutrition. *Am. J. Med. Sc.* 127: 217, 1904.

[4] Coates, G. M., and Ersner, M. S.: Occurrence of eosinophiles in mucous membrane of maxillary sinus in asthmatic patients. *Arch. Otolaryng.* 11: 158-168, Feb., 1930.

[5] Bezancon, F., and Bernard, E.: Eosinophilia in asthma. *Ann. de Med.* 27: 204-233, Feb., 1930.

[6] Code, C. F., and MacDonald, A. D.: Histamine-like activity of the blood, *Lancet* 2: 730-733, Sept. 25, 1937.

[7] Biggart, J. H.: Some observations on the eosinophilia cell. *J. Pathology and Bacteriology;* 35-799, 1932.

[8] Rous, F. Peyton: Some differential counts of the cells in the lymph of the dog: their bearing on problems in haematology. *J. of Exp. Med.,* 10, 537-547, 1908.

[9] Kirk, R. C.: Clinical Significance of Eosinophilia. *J. Lab. & Clinical Med.;* 35-1137, Aug., 1938.

[10] Ishihari, Akira: Experimentelle Untersuchungen Über die Eosinophilie. *The J. of Chosen Med. Assoc.;* April 20, 1939.

DOCTORS WATCH THE RAMPARTS, TOO*

(A FEW NOTES FOR THOSE WHO WILL SERVE)

J. R. PHILLIPS, LIEUT. COMDR. M.C.—U. S. NAVAL RESERVE

MICHIGAN CITY

With World War II well into the second year, we in this country are witnessing the unprecedented "dressing in" of a peacetime draft. Already medical officers of the Army and Naval Reserve are being utilized to facilitate the Selective Service Act. Many more of us are wondering what part we will be called on to play.

This winter should show whether bombs and divers or pneumonia and exposure are the more destructive of human life and whether sleepless nights in subways or lack of food have the most telling effect on civilian health and morale.

If there is a military stalemate, will disease prove the decisive factor? It has in the past, you know, and it will be surprising if those cold, damp, and smelly underground tunnels do not produce another epidemic. Rats have a way of finding people out.

While attending a two-weeks medico-military symposium, my interest was quickened in the rôle of the medical departments of the Army and Navy, and I, for one, am convinced that modern war is nobody's picnic. But horrible as a blitzkreig may be, with its consequent toll of human life, suffering, and great destruction of property, the past has illustrated that there is another factor which has a more far-reaching effect.

There is one aspect of modern war which has been neglected in the press. Captain Limpus[1] writes that it cost Caesar only about 75c to kill a man, in Napoleon's time it cost $3,000 per man, and in our own Civil War the cost was about $5,000 per killed man. In World War I, to kill 8,538,315 men, the cost had risen to $21,000 per dead soldier, and Limpus hazards the guess that the present war may well see that figure raised to the almost impossible figure of $50,000. Can any nation long afford this colossal strain on its finances? However, if this holocaust which is now raging up and down the World does not soon end in bankruptcy for all concerned, we may be treated with the spectacle of a less expensive way of killing people—widespread epidemics may be our fate.

"Disease to which the flesh is heir" has impressed itself on history in two ways: first, as it has affected the masses and, second, as it has affected certain individuals. Who can judge which has played the leading part?

Historians have not dealt to any great extent with the enormous effect exerted by disease on history,[2] apparently preferring to gloss over it as another incident, and yet in a study of "The Fifteen Decisive Battles of the World"[3] we find that disease played a notable part in the outcome of at least three and was a contributing factor to the outbreak of war in several instances.

Dempster[4] quotes Sir George Newman as follows: "The history books of a former day record in much detail the more outstanding and arresting events which concern war, but they pass over with comparative scanty references the changes in population and their causes, the struggle of the mass of people to obtain food, and the profound effect of widespread diseases. Yet the pestilences of the ancient world . . . the epidemics of the seventeenth and eighteenth centuries, the diseases which have followed armies from the Thirty Years War to Napoleon and our own times . . . these have excited an effect upon the history of mankind more powerful, fateful and enduring than any single factor. As disease changes or terminates the life of an individual, so also it alters the course of history."

At what period in world history the earth became inhabited by man is debatable, but just as uncertain as that may be we can be sure that he soon became host to disease. Pott's disease, demonstrated in a mummy of 1000 B. C., indicates that tuberculosis was not unknown in antiquity and rheumatoid arthritis found in Egyptian mummies has been explained as due to the moist climate during the overflow of the Nile. The Biblical references to plague and pestilence and the remarkable steps taken to prevent them, places the Hebrew priests as the first medical police.[5] The siege of Jerusalem by the Assyrians was raised by a pestilence.[6] "And it came to pass that night, that the angel of the Lord went out and smote in the camp of the Assyrians a hundred four score and five thousand; and when they arose in the morning, behold, they were all dead corpses."

Under the Greeks medicine was an entirely different thing. Progress that had been made was

*a. Since this article was submitted the author has been ordered to active duty with the U. S. Marine Corps, Fleet Marine Force.

b. The opinions expressed are those of the author alone and do not necessarily reflect the views of the Navy Department or the Naval service at large.

[1] Limpus, Capt. Lowell M.: Twentieth Century Warfare. 1940.

[2] Taylor, Mark R.: Great Epidemics of the Middle Ages—*J. State Medicine*, 43:361-369, June, 1935.

[3] Creacy, Sir Edward: Fifteen Decisive Battles of the World.

[4] Dempster, J.: Disease as a factor influencing History —*J. Mich. State Med. Soc.*, March, 1934.

[5] Garrison, Fielding H.: History of Medicine, 1924—3rd Edition.

[6] Second Book of Kings, 19th chapter, 35th verse.

lost. To cite the remarks of Sir Flinders Petrie in "Revolutions of Civilization," quoted by Scarlet,[7] "Petrie pictures civilization as an intermittent phenomenon in which no civilization has proved permanent and he estimates about 1,500 years to each period. In Egypt there were eight such periods; in Europe, three. . . . The downfall of a civilization is usually brought about by the invasion of peoples of a lower culture but greater virility, and from the mixture of old and new races a new culture is born, after an incubation period of relative barbarism, which reaches its maximum in a flowering time lasting a century or two and then gradually declines.

"In the development of its culture each civilization goes through a sequence. Art, notably in sculpture and architecture, first reaches its highest point; literature follows next, and science comes last of all and may be delayed five hundred years after sculpture has reached its height." It is obvious, if this be true, that the advances in medical science made in a previous civilization would be lost and for a period of perhaps a thousand years medicine would be a crude thing.

The classical period of Greek history was another thing. "Never before or since have so many men of genius appeared in the narrow limits of space and time. The personal hygiene and the education of the Greeks of the Fifth Century, B. C., enabled them to attain a degree of civilization and supremacy in philosophy, lyrical and dramatic poetry, sculpture, and architecture which has not been equaled. The Roman rite of lustration and purification of the town site, field, or body of people within an area by repeated processional around it, was intimately connected with the enumeration of troops before and after battle and the quinquennial census of Rome. Their hygienic achievements, such as cremation, well ventilated houses, aqueducts, sewers, drains and public baths were of great consequence."[5]

But while Graeco-Roman medicine gave us some things which are good, one man of that time, Galen (131-201 A. D.), dominated medical thought so completely as to retard medical advancement for 1,500 years, clear through to the time of Vesalius. So we find superstition, reverence for that which has already been written and the belief that the Creator sends disease to show his displeasure with man, paving the way for that which was to follow. The rules of military hygiene laid down by Moses in Deuteronomy, the code of Hammurabi, the mandates of Leviticus, the teachings of Hippocrates, all seem to have been forgotten and during the Middle Ages man again reverted to what almost amounts to barbarism.

Scarlet[7] makes the point that, "Plague is bound up with the forces which have determined the movements of civilization. It has been connected intimately with the great periods of European civilization and was one of the factors which brought to an end the classical periods of Greece and Rome. It has been, in the past, the instrument of those mysterious laws which govern population and with it the rise and fall of peoples. . . . Plague has inspired no great literature, no adequate representation in art; verse or prose has not had it for its theme." Men seem to have pushed it into the background and histories only devote a few pages to it. It may even have been a mutually and generally proscribed subject, like venereal disease until lately, or it may have been so by decree. Leastwise a letter cited by Sir Clifford Albutt[8] shows that too much discussion was frowned upon.

H. G. Wells[9] mentions that the early Pallonithic men (Rheindeer men) may have disappeared because of pestilence. Thucydidis describes the plague of Athens in the second year of the Peloponesian War (430 B. C.), and from the mention of the rash, Garrison believes it may have been scarlet fever; some believe it to have been typhus. During the reign of Marcus Aurelius (164-180 A. D.) there was a great plague. The Great Plague of the Antonnines, occurring during the hey-dey of the Roman Empire, "caused such profound effect socially, economically and politically,"[9] that it is pointed to as one of the causes of the fall of that empire. This particular outbreak spread to China, where it raged for eleven years.

The ravages of Attila the Hun in North Italy were checked by an outbreak of fever in 452. Toward the end of the reign of Justinian, 565, an epidemic of bubonic plague weakened the defense of Italy against the Lombards. In 543 A. D., 10,000 people died in one day in the city of Constantinople. Plague was raging in Rome in 590 A. D.

In the sixth and seventh centuries, pestilence and attendant social changes gave rise to monastic orders, Christian and Buddhist, and Cassidous like Benedict and Pope Gregory exerted great influence toward the restoration of social order in the Western World. "Bede, one of the few writers of that time, records pestilence in England during the years 664, 672, 678, and 683. Twenty years of plague and disorder!"[5]

Now out of the plague and the influence of the Benedictine monasteries there developed the medieval universities which were to be the custodians of learning through the dark days to come, the Dark Ages, and following the monastic era came feudalism, the direct result of a need for a protective agency. Knight and serf, all unite for the ultimate protection of their King. In a sense, man was no longer free.

As Europe gradually reorganized, Rome came under the domination of one man, Hildebrand, who became Pope Gregory VII. His was a reign of

[7] Scarlett, E. P.: Concerning the Plague—Med. Jour. and Record, pp. 647-651, Dec. 4, 1929.

[8] Albutt, Sir Clifford: cites letter of Duke of Milan—quoted by Scarlett.

[9] Wells, H. G.: The Outline of History, 1920.

reform, and under his successor, Urban II, the religious fervor leading to the Crusades became dominant. It has been said that the Crusades were coldly calculated by the Church to get rid of the free-booting Normans who were then tearing Italy asunder, and this was to induce them to seek new fields. A pestilence came to their aid, whether needed or not, and men flocked to the banner of the Cross, many seeking to escape the pestilence, some seeking plunder, and a few seeking new homes. Harold Lamb[10] portrays the Crusades in a masterly way but Voltaire writes, "All we got out of the Crusades was the leprosy."[11]

Garrison[5] points out that some good did come out of this religious fervor: "The chief glory of medieval medicine was undoubtedly in the organization of hospitals and sick nursing which had its origin in the teachings of Christ. Hospitals had existed previously (Cingalese records indicate their existence in Ceylon 437-137 B. C.), but it was not until after the Crusades and the spread of leprosy that hospitals in any number were found. There were an extraordinary number of lazar houses, as they were called, 220 in England and Scotland, and 2,000 in France alone." Writing further, "Few reflect that the great struggles for commercial supremacy and sea power, beginning with the Middle Ages, and lasting for nine centuries (during which time the centers of trade shifted successively from Venice to Lisbon, Amsterdam and London), were largely concerned with the enormous profits derived from the drug trade.

"The rise of the naval power of the Venetian Republic (820-1517) began with the lucrative Mediterranean transport service necessitated by the Crusades. The influence of Arabic Pharmacy and actual contact of the Crusaders with their Moslem foes greatly enhanced the value of Eastern drugs. The records of the custom-house at the port of Acre (1191-1291), and the later narrative of Marino Sanito, show a lively traffic in aloes, benzoin, camphor, cinnamon, cloves. . . . Balsams, spices, dyes, resins, rare woods, and drugs had much to do with the struggles of the Venetians with the Genoese and the Turks, culminating in the battle of Lepanto (1571). The defeat of the Genoese in the sea-fight off Chiogga (1380) marks the height of Venetian supremacy. The fall of Constantinople (1453) marred much of the Eastern and Egyptian trade and the high cost of pepper and other condiments gave an incentive to the Portugese navigators."

Wells[9] gives us an interesting side-light on a naval battle occurring in 1298 between the Genoese and Venetians in which the latter were defeated. "Among the 7,000 prisoners taken by the Genoese was a Venetian gentleman named Marco Polo. . . . While this Marco Polo was a prisoner in Genoa, he beguiled his tedium by talking of his travels to a certain writer named Rusticiano, who wrote them down. . . . The Travels of Marco Polo is one of the greatest books of history. It opens this world of the thirteenth century . . . to our imaginations as no mere historian's chronicles can do. It leads directly to the discovery of America . . . it was the beginning of a very considerable intercourse. That intercourse was to bring many revolutionary ideas and many revolutionary things to Europe, including a greatly extended use of paper and printing from blocks, the almost equally revolutionary use of gun-powder in warfare, and the mariners' compass which was to release the European shipping from navigation by coasting."

What I am attempting to convey is that the profession to which we are bound had risen from its lowly beginning, we were once slaves, barbers and itinerants cutting for stone, by the way, to an enviable position wherein the very drugs we used were now the cause of wars, and had prompted explorations of the unknown world. Columbus was not only seeking a new trade route to the East but also wealth in the form of spices when he accidentally discovered a New World, and by virtue of this accident, a new disease, syphilis, was introduced into Europe.[12]

But while the Crusades may have contributed some things which we of the Christian world like to feel are ours exclusively, there was a deplorable sequella which is seldom mentioned. The Children's Crusades, occurring almost simultaneously in Germany and Italy, stripped many homes of children and only a few ever returned. They either perished in the mountain passes of the Alps or were carried off into captivity. Browning uses this phenomenon, connecting it with the plague and infestation of rats, to write his "Pied Piper of Hamelin."

The Englishman, Wycliffe, who translated the Bible into English, by his writings challenged some of the practices of the Pope, notably the rituals, and as his words were so acceptable to the free-thinking Bohemians it is not surprising that the first move in the Fifth Crusade was directed against these heretics. The Hussites were victorious and free thought remained.

Following the Crusades, the plague, which we can almost anticipate, struck again with more than its usual ferocity. Of this Wells[9] writes, "The Black Death came nearer to the extirpation of mankind than any other evil has ever done. It arose in South Russia or Central Asia, and came by way of Crimea and a Genoese ship to Genoa and Western Europe. It passed by Armenia to Asia Minor, Egypt and North Africa. In 1348 it reached England." Two-thirds of the students of Oxford died. One-quarter to one-half of the popu-

[10] Lamb, Harold: The Crusades (Iron Men and Saints), 1930.

[11] Editorial, *J.A.M.A.*, Disease and History—Sept. 21, 1935.

[12] Some writers, Butler, Holcomb, and others, do not agree with this version.

lation of England perished. It was estimated that in Europe 25,000,000 succumbed, and in China where there were 13,000,000 victims the social disorganization was so great that the people became negligent of their safety against floods, their streams overflowed, bringing famine and more misery.

In England there were not enough peasants left to till the soil, the lords became more and more oppressive, and finally there came the Peasants' Revolt of 1381. Similar revolts occurred in France and Germany a bit later. Wells believes these uprisings were an early example of Communism.

Again in 1430 Europe was laid low and an editorial in *The Journal of the American Medical Association*[11] discusses its effect on England: "Amid the general lamentation and woe, the influence and authority of every land, human and divine, vanished. It paralyzed trade and industry, especially agriculture, but also war and politics. It detached people from the soil, drove them into towns, increasing urban population at the expense of rural, planted the germs of commerce and industry and began the expansion of England manifested in the time of Elizabeth. So with desolation came elbow room and opportunity."

In the fifteenth century, following the Black Death, there arose a peculiar phenomenon known as the "Brotherhood of the Cross," a strange sect of men known, too, as flagellants, who in their religious fervor wandered over Europe, crawling and twisting like dervishes, chanting dolorous hymns of misery, causing the local priests untold trouble because of the disorders, riots and general unrest which their actions engendered. It has been pointed out that this manifestation of religious unrest led to the Reformation.[9]

In connection with the above it might be pointed out that following periods of stress such as war, famine, and epidemics of great proportion, the population reacts to an extreme. An example is the "Laughing Sickness" following the plague of the fifteenth century in which whole communities joined in laughing and dancing, leaving their homes and work to go cavorting here and there for months on end without any sense of responsibility. Several years elapsed before this "mass hysteria" subsided and many people never returned to their old homes.

Following the last war there were analogous examples but to a much modified extent. Spiritualism made some inroad in England and such men as Sir Oliver Lodge and Sir Arthur Conan Doyle took it up; Lodge,[13] the physicist, even writing a book concerning his communications with his son, Raymond, who was killed at the front. In France, M. Coue brought out his jingle, "Every day in every way I'm getting better and better." Remember?

In 1664, London, with a population of 500,000, lost 70,000 people, rich and poor alike. In certain burial grounds of London, today, these barrows, or mounds in which the victims were buried en masse, are still distinguishable. (We read in the papers that they are burying their dead in similar trenches today.) In July, 1564, three months after the birth of William Shakespeare, plague started in Stratford-Avon and most of the population perished. Fortunately for posterity, the bard escaped. Notable victims were Pictio and Ambrogia Lorenzeti, painters, Holbein the Younger, and Titian. Boccaccio's Decameron, by the way, is woven around the "Black Death."

Samuel Pepys[14] mentions the plague frequently during 1665: July 31 . . . "Only under some difficulty because of the plague, which grows mightily upon us, the last week being about 1,700 or 1,800 of the plague." Aug. 8th . . . "The streets mighty empty all the way now even in London, which is a sad sight. And to Westminster Hall, where talking, hearing very sad stories. Poor Will, that use to sell us ale at the Hall-door, his wife and three children died, all I think in a day. So home through the city again, wishing I may have taken no ill in going; but I will go I think no more thither . . ." "Aug. 10. To the office, in great trouble to see the Bill this week rise so high, to above 4,000 in all, and of them above 3,000 of the plague. After writing letters, home to draw over anew my will, which I had bound myself by oath to dispatch by tomorrow night, the town growing so unhealthy that a man cannot depend upon living two days to an end." . . . "Aug. 12. The people die so that now it seems they are fain to carry the dead to be buried by day-light, the nights not sufficing to do it in. And my Lord Mayor commands people to be within at nine at night, all as they say that the sick may have liberty to go abroad for ayre." Aug. 31. "Up; and after putting several things in order to my removal, to Woolwich. (He moves with the Admiralty because of the plague.) . . . In the City died this week 7,496, and of them 6,102 of the plague. But it is feared that the true number of the dead is near 10,000; partly from the poor that cannot be taken notice of through the greatness of the number, and partly from the Quakers and others that will not have any bell ring for them." . . . Sept. 3. "(Lord's Day) Up; and put on my coloured silk suit very fine, and my new periwigg, bought a good while since but durst not wear because the plague was in Westminster when I bought it; and it is a wonder what will be the fashion after the plague is done as to periwiggs, for nobody will dare to buy any haire for fear of the infection, that it had been cut off the heads of people dead of the plague." . . . "Sept. 4. After dinner to Greenwich . . .; but it troubled me to pass by Coome farme where about twenty-one people have died of the plague, and three or four days since I saw

[13] Lodge, Sir Oliver: Raymond or Life after Death.

[14] Pepys, Samuel: Everybody's Pepys—edited by O. F. Morshead, Harcourt and Brace, 1926.

a dead corpse in a coffin lie in the Close unburied; and a watch is constantly kept there night and day to keep the people in, the plague making us cruel as doggs one to another."

And so this observing Secretary of the Admiralty, sometimes referred to as the father of the Royal Navy, in a few notes in his diary, portrays for us the fear and horribleness of his time.

Relating to the changes in dress and coiffure, the Honorable William Riddell[15] relates that, "in the Middle Temple Records, p. 23, Parliament 14 June, 1583, there is a notation; 'no reading this autumn on account of the plague in every part of the city and chiefly in our House.' (Parliament was not exempt, it seems.) In July 6, 1584, the orders appear, 'no great ruffs be worn, no velvet facings be worn except by Masters of the Bench, none to walk on the streets in cloaks but gowns, that no hat nor long curled hair be worn. That no gloves be worn except of sad colour." (One would suppose that black warded off disease better than gray or white.)

Not all epidemics have been due to bubonic plague, as we all know. Getting down to more modern times, it is noted that cholera still takes an annual toll in India of from one-half to one million. Katherine Mayo[16] vividly tells us how unsanitary conditions, religion, and the Ganges cooperate to bring this about. Dr. Heiser[17] tells us that seven great epidemics since 1820 ravaged the population of the Philippines. Deaths in Manila have reached 1,000 in a single day.

Rosenau[18] writes that typhus fever hit the Balkans, Russia, Poland and Germany, hard, following the World War I, and I recall reading press reports from Russia telling of bodies being piled up like cord-wood and set afire. Serbia alone lost 150,000 in 1915-1916.

Up to the World War I, typhoid fever killed and maimed more people than powder and shot, according to Garrison.[5] During the American Civil War, both the North and the South were sometimes hard put to it to keep an army in the field due, in part, to typhoid and dysentery, and in the Spanish-American War these water-borne infections, together with malaria and yellow fever, were a much greater enemy than our antagonists.

The United States might not now control the Panama Canal if "Yellow-jack" had not proved so formidable, but thanks to the work of Walter Reed, Carol, Lazear, Agrimonte and other intrepid spirits, General Gorgas[19] won where England and France had failed.

Marcus Aurelius and Louis XV both died of smallpox. In our own country the Indians were so reduced in numbers (remember they had no racial immunity to it) as to enable the early settlers to make headway against them. Someone has said that "smallpox and whiskey whipped the red-skins."

George Washington is said to have died of diphtheria (one author believes it to have been edema of the glottis, streptococcus?), and many of us can remember the dread with which black diphtheria was held in our childhood. I wore a bag of asafetida around my neck from September until May, and when there was a case of it in town we walked on the other side of the street. Some crossed themselves.

And who can forget the influenza[20, 21] and its attendant pneumonia of 1918-20? None of us need to be reminded of all this; it's old stuff, I can hear you say, but just suppose you are called on to act as camp sanitarian in an unfamiliar locality, or your ship puts into a port where the rotten wharf is rat-infested.

Sir Ronald Ross has estimated that until recently 2,000,000 people died annually from malaria. In the Hoosier School Master, it was called "ague." Ross believes that "The conqueror of Greece was not the Macedonians or Romans, but malaria. The destruction of nations appears to have resulted more directly from diseases of an insidious nature rather than from those of an acute or violent one."

Similar in its insidiousness may be mentioned hook-worm which in the southern states, China and India, plays no small part, being in a large measure responsible for the economic condition of the poorer peoples.

As military methods change, so does military medicine. The present Reserve medical officer, when mobilized, will not only find new and strange duties in connection with aviation and submarine activities, but he will find more emphasis on preventive medicine. That was also true in the last war but there have been many changes since then. We need not enumerate them here.

This country is now pledged to defend the entire Western Hemisphere, if need arise. We will have to know more about tropical medicine, water-borne and insect-carried diseases, strange peoples and their strange customs. If perchance duty falls in one of the countries to the south, we will be confronted with a strange language, at least most of us will, and if it should become our duty to establish a quarantine for a communicable disease in one of these far-off communities, we will be about as popular as the proverbial 'coon dog with fleas. Better brush up on your treat-

[15] Riddell, Hon. William R.: Historical Medicine—*Med. Jour. and Record* 129:380-382, Apr. 3, 1929.

[16] Mayo, Katherine: Mother India, 1927.

[17] Heiser, Victor: An American Doctor's Odyssey, 1936.

[18] Rosenau, M. J.: Preventive Medicine and Hygiene, 1923, 4th Edit.

[19] Gorgas, M. D.: Hendrick, B. J.: William Crawford Gorgas, 1924.

[20] Falk, I. S.: Some Riddles in Epidemiology—*The Scientific Monthly*, Vol. XX, pp. 383-404, April, 1925.

[21] Brownlee, John: The causes of epidemics and the laws which regulate their course—xvii the International Congress Med. 1913, London.

ment of chiggers,[22] dhobie's-itch, yaws, onchocerciasis, and craw-craw, not forgetting snake-bite, dragon-bite, poison fishes, arrow poisons and voodoo. And one word more—alcohol in the tropics is disastrous if imbibed in large quantities.

Some of us will do duty in Hawaii. Major Eliot[23] writes that the mixed population constitutes, in itself, a military problem. In June, 1937, the population of the islands was 396,715, including 60,000 Hawaiians and part Hawaiians, 151,000 Japanese, 27,000 Chinese, 30,000 Portuguese, 53,000 Filipinos, 7,500 Puerto Ricans, 6,600 Koreans, 57,900 Americans, Germans and Russians and a scattering of other nationalities. That is what we will run up against. Is it a medical problem, too? If you think not, read *An American Doctor's Odyssey*.[17]

Since "total war" is only waged at terrific expense and since most of those countries engaged are supposed to be hard pressed for money, it may be that before long one or more of them will go clear off the reservation and adopt bacteriological warfare although this is expressly forbidden by the Third Hague Convention, and even though there is great danger of this method back-firing. If such demoniacal methods are successfully adopted, the medical men of the world may become their country's greatest asset.

[22] Manson-Bahr, P. H.: Manson's Tropical Diseases, 1923—7th Edition.

[23] Eliot, George Fielding: The Ramparts We Watch, 1938.

ABSTRACTS

DEMAND FOR MEDICAL PERSONNEL IN WAR INDUSTRIES IS GROWING

"The demand for more and better trained medical personnel in war industries, under both governmental and private control, is steadily becoming more insistent," *The Journal of the American Medical Association* says in an editorial on "Availability of Trained Industrial Physicians," in its March 29 issue.

"The scarcity of competent industrial nurses, engineers and physicians accords with an early impression of the Committee on Medical Preparedness of the American Medical Association; one of the first resolutions of the committee called for prompt organization and adequate support of training facilities for physicians interested in this field."

In the same issue of *The Journal* is a report by the committee of its findings up to March 1 in its survey of the number of industrial physicians in this country, classified by their type of practice. On that date punch cards had been made on 4,434 industrial physicians. Some of the facts revealed in the report are that 2,967 physicians are engaged in general industrial practice, of which 866 are on full time, 1,079 on more than half time and 1,022 on less than half time. Those doing traumatic surgery total 677, with only 100 on full time. A total of 139 are engaged in plant medical department administration, 103 of them full time. Out of 115 engaged in physical examinations, only 26 are full time.

The report points out that it is only a partial tabulation. Of 10,314 special questionnaires sent out to physicians, 6,332 replies had been received up to March 1. Of these 4,981 replied that they were now engaged or had experience in industrial practice. The information on 547 of these had not been transferred to punch cards on March 1. Referring to this report the editorial says:

"Obviously, such lists of physicians constitute a record of men already placed. No matter what their qualifications, they are available for service elsewhere only at the expense of industrial service in which they are already engaged.

"The present emergency will undoubtedly be sufficient inducement for many more physicians to undertake industrial medical service, especially those who have an interest in preventive medicine and a flair for administration. There are sound indications for believing that interest in industrial medicine and hygiene will not lapse as it did in the period following the last war. Opportunity for professional advancement, then, is most reassuring and need not be considered as limited to the period of the emergency. Certainly the obligation of medical educators to prepare the profession for greater and more competent participation in the maintenance of health in industry is much better recognized. At present organized instruction is available in a few medical and professional schools. Teaching facilities of the same type ought to be widespread and will be developed elsewhere without much difficulty as soon as financial support becomes available. The fundamentals of preventive industrial medicine and surgery can be supplied to a well qualified physician in three months' time, especially if a period of controlled experience in an acceptable industrial medical department can be added to this instruction. Since the medical requirements of industry are so varied, considerable adaptability in the content of the course and in field work is essential. Medical societies are also developing introductory and refresher courses as part of the program to integrate all industrial medical activity under the joint guidance of the committees on industrial health in the state medical societies and the bureaus of industrial hygiene in the state governments.

"The Subcommittee on Industrial Health and Medicine of the Federal Security Agency, acting as coordinator in this field, has developed a Committee on Registration and training of Medical Personnel for Service in Industry. During the early period of adjustment to emergency conditions, physicians who wish to apply for intensive training or for actual placement in industry are urged to register their names with the office of the Council on Industrial Health of the American Medical Association, 535 North Dearborn Street, Chicago. It is expected that the development of such a central advisory and placement service will do much to supply industry with dependable sources of assistance and service from the medical profession."

DOCTORS NEEDED TO SERVE BRITAIN

In view of the acute shortage of British doctors, an appeal has been endorsed by the President of the United States and the Surgeons General of the Army, Navy and Public Health Service for at least 1,000 young American doctors to reinforce the hospital and medical services in the United Kingdom. Applicants desiring to volunteer through the American Red Cross to the British Red Cross for service with the Royal Army Medical Corps and the British Emergency Medical Service may secure further information at the headquarters of the Indiana State Medical Association.

Ed. Note: We believe it would be a good idea for refugee physicians to volunteer for this service.

This is the fourth in a series of articles on Indiana's "twelve great killers." Next month the article will deal with pneumonia.

ACCIDENTAL DEATH

MALACHI C. TOPPING, M.D.*

TERRE HAUTE

Death is an accident. Accepting this statement as a premise, the term "accidental death" is obviously a redundancy. But is our premise correct? Ask any pathologist if at autopsy he is at a loss to find a *cause* of death. Have you ever seen the cause of death ascribed by a pathologist as natural—or old age? No, there is always the intrusion of some extraneous factor, be it virus, trauma, poison, or starvation. We do not die; we are killed, all meeting death accidentally. Life itself is immortal; it is only the excrescences, of which we make up a small part, that from time to time get rubbed off. Like the draft, this is universal, but will never be popular. So let us consider ways and means for stopping it.

First let us delegate pestilence, disease and starvation to those branches of medicine which have to date done such brilliant work toward their eradication. If they are let alone and allowed to work in the near future as they have in the recent past, it will be but a short time until all three can be considered controlled.

This leaves us trauma, and it is with *traumatic* death that we wish to deal in this paper. All traumatic death is unnecessary. There is no such thing as an unavoidable accident. It is, therefore, in the prevention of accidents, the same as in the general field of preventive medicine, that the most productive work can be done. This field belongs as much to the medical profession as any other branch of prevention in the public health. With the possible exception of suicide, homicide, war, and the catastrophies of nature, the entire gamut of the causes of accidental death belong to our profession. And it might be debatable, but that the above first three exceptions also be properly considered our babies, at least from the psychiatrist's point of view.

So the remaining three general classifications of the causes of traumatic deaths are as follows: those occurring in the home, those met in transportation, and those occurring in industry.

Contrary to general belief, accidents resulting in death, occurring in the home are appallingly frequent. In fact they make up a major source of deaths from all causes. The modern house is a small but highly complicated piece of machinery. It combines complex chemical, mechanical and electrical processes, usually thrown together with a complete disregard for the most rudimentary of safety features except for those built into the individual units by their manufacturers. No factory manager could afford for one moment to risk the lives and limbs of his employees in a plant so devoid of safety planning and rules as the house that he expects his wife to work in. No insurance company would issue disability protection to the employee of such a plant as, in fact, they will not to the housewife. At no place in the world does death lurk in so many accessible spots as within the doors of your own home. Let us see how a "safety engineer" would appraise your house. He approaches the front door and finds ice on the steps, or perhaps it is Junior's wagon. He opens the front door, if it does not stick, and notes that it has a glass panel in it that ten to one is neither safety nor wired glass. Then he trips over a raised sill or stumbles on the weather stripping and finds himself standing on a waxed or otherwise highly polished hard wood floor. Placed over this treacherous surface are various islands that are aptly called "scatter rugs" and are designed to promptly "scatter" any flesh and blood that unwarily entrusts his tread to their false security. Traversing this area he sinks into a so-called easy chair in front of an open fireplace in which is crackling a cheery though unattended fire; he notes that mother's darning needle and an assortment of pins are stuck in the arm of the chair—perhaps for accessibility. He arises and disentangles the crochet hook from his nether regions. He idly glances over the titles of a few books supported by heavy ornamental book-ends placed just beyond the center section of a drop-leaf table. Beside the table is a reading lamp plugged into a wall socket; the lamp cord is frayed and the plug is broken. Under the window is a metal fixture called a radiator toward which he sends a tentative exploring finger, but hastily withdraws. Upon entering the bathroom he finds himself standing upon a tile floor surrounded by three major porcelain fixtures. The most interesting of these gadgets is surmounted by two heavy lids which can be swung upon hinges and stood on end, but which drop with a resounding bang upon the slightest provocation. Upon turning a handle at the side there is a tremendous gush of water through the bowl, which, if the gas water heater has been forgotten and hot water backs up into the cold water system, is capable of being scalding. The flow of water into the wash bowl is controlled by two valves with porcelain handles. One of these is cracked and if the valve sticks, undue pressure will certainly break it with resulting laceration of the hand. Over the sink is a

* Chairman of the Committee for Prevention of Traffic Accidents, Indiana State Medical Association.

"medicine" closet. On the shelves is a conglomerate assortment of bottles, old razor blades, tooth brushes and drugs. Side by side nestle mercury bichloride tablets and aspirin, lysol solution and croup remedy. Against the far wall is set a porcelain tub with sloping end and smooth contour. When wet its depths are slicker than a Mississippi gambler's cut. From a stance in its middle, within easy reach, is the pull chain from the wall light socket. Upon emerging from this chamber of horrors your appraiser walks into the kitchen. Here he finds a stove which burns a lethal and explosive mixture of coal gas and air. The cupboards contain china and glassware, all capable of breakage with lacerating potentialities. The drawers contain cutlery, any piece of which is a dangerous weapon in the hands of carelessness and inexperience. The bins are stacked with pots and pans, many with handles loosened and bottoms rounded, all capable of upset when filled with boiling liquids.

And so our engineer continues his tour, but we have seen enough to cause us, I hope, to stop and think a moment of ways to correct and prevent this "menace in the home."

First in the designing and furnishing of houses, safety must be included in the specifications as well as beauty and utility. After all, the safeness of an accommodation is a measure in one degree of the comfort it is capable of giving. The modern trend toward "built-in" fixtures is to be encouraged and extended to include furniture where practical, and furnishings should be minimal in amount; restricted to those of utilitarian value. These measures must be made the "smart" things to do by education and precept. Architectural engineering must be made to include safety planning and Home Economics made to re-emphasize safety in its teachings. No sacrifice of beauty need be made for both beauty and safety lie only in simplicity.

In transportation we meet the greatest single killer of them all—the automobile. No more fearsome blot has ever been made on the record of mankind's progress than the wholesale slaughter left in the path of this modern juggernaut. Even war plays second fiddle. Deaths from the bombings of today's unrestricted aerial warfare do not approach yesterday's toll of the Scythian chariots of the super-highways. The answer lies in design of roadways, restriction of vehicles, and control of drivers.

We are making progress in the design of modern highways, but this is not enough. Ninety percent of the highway system of this country is a relic of the horse and buggy era. The newly designed and safer roads are built for today's cars and traffic, when all should be planned to accommodate the vehicles and traffic of the immediate future. Surely the future needs of our country can be as adequately foreseen in this direction as can other planning for the future be carried out.

By the restriction of vehicles I mean not only the segregation of different classes of traffic to certain specified traffic channels, but also the government inspection, testing, and licensing of every new model built by a manufacturer before it is released to the public, and the yearly inspection and relicensing by the government of every individual car before the owner is permitted to continue its operation. This would work no hardship upon the owner who keeps his equipment in proper repair and could be accomplished by licensing qualified auto-mechanics by examination to carry out this inspection service. Federal license fees paid by the owners would defray the administrative and inspection costs of the department. Legislation aimed at restriction of the power, speeds, etc., of automotive equipment would throttle development and expansion of the industry and thereby discourage the free enterprise of science and invention which have been responsible for the advancement of our nation. Legislation such as is now prevalent to restrict the performance of automobiles by the volition of the drivers, constitutes a challenge to the right of action of the driver in the exercise of his privilege of driving the machine which is designed for greater speeds and performance than he is permitted by law to obtain from it. The desire for speed cannot be controlled by law any more than can the desire for alcoholic beverage.

Control of the driver can be exercised, however, by licensing him perquisite to his physical and mental qualifications and his skill in operating the vehicle for which he desires license. Physical examination of every automobile operator should be made yearly by designated physicians and driving skill tests given every novice and others on recommendation of the examiner.

The above plan is not complicated and it is workable. It does not depend upon unpopular legislation for the control of automobile driving, but upon the individual responsibility of the manufacturer, maintenance mechanics, and operators of the vehicles. It is essentially the same plan that is in successful operation by the government for the control of civil aviation. The application of this plan to the control of the operation of civil aircraft has made the operation of aircraft under the civil aeronautics authority safer than the driving of an automobile under no authority except the popular belief that everyone has the right to drive a car.

Deaths occurring in all other methods of transportation are negligible by comparison. The problem of transportation deaths rests squarely upon the shoulders of the man behind the wheel of the motor car.

Accidental death occurring in industry is always a problem in an industrial nation. Progress in applying safety measures to industry has been slow, but is being made. The greatest single contribution has been made by the almost universal

passage of State Workmen's Compensation acts. By these acts medical expenses and compensation to the workman for lost time, physical impairment, and death are made a part of the cost of production and it thereby becomes the part of good business to keep these costs down by safety planning, engineering, and education. Money, time and effort spent in the prevention of accidents pays a profit to the manufacturer in the decreased cost of his goods. There is, however, still room for vast improvement. Many manufacturers seemingly fail to grasp the fundamental principal underlying this legislation and neglect safety measures, either from a shortage of working capital or because of a short-sighted effort to curtail immediate operating costs, gambling upon the future accident rate. It always raises—and their insurance premium with it. These are the assureds who always find it difficult to find insurance coverage at a reasonable figure and drift from one company to another. If they have active competition by more progressive manufacturers, the unwholesome safety situation is automatically adjusted in time. Otherwise the answer lies in education, both of the industrial heads and of the labor employed. The latter is often in a position to properly demand better working conditions so far as safety is concerned.

On the other hand labor is often placed in the obstructionist category by objecting to safety measures instituted for their mutual protection. This is most often found when the measures involve the slowing of piece work production rates thereby curtailing the amount of money it is possible to make in a given time. It is also found in much of labor's objection to pre-employment physical examinations. The charge is made that these examinations are used by the employer as an excuse for eliminating physically qualified men, but undesirable to the company for other reasons. These charges involve the integrity of the examining physician and, when true, place the odium squarely in our laps.

The responsibility of the medical profession in the prevention of accidents lies with the organized whole through their appropriate committees and their combined prestige. It also lies with each individual member in his personal conduct and example, and through his influence upon the members of society with whom he comes in daily contact.

505 Tribune Building.

ABSTRACT

INSURED BRITISH WORKERS FOUND TO HAVE MANY PHYSICAL DEFECTS

The claims that compulsory health insurance in this country will result in a healthier population appear to be refuted by the large number of physical defects found in an examination of a group of English working people who are under national health insurance, *The Journal of the American Medical Association* for March 29 says in an editorial:

"An opporunity to compare the health of a sample of British workers as to physical condition and morbidity with the numerous reports of similar investigations in the United States is afforded by an article which appears in a recent issue of the *Lancet*.

"The report covers an examination of 1,592 workers, including 1,352 men and 240 women. There was nothing amateurish or superficial about the examination. 'Many were seen twice and a few three times; some 60 were sent for a second opinion to members of the consulting staff of the local municipal hospital. The pathological and x-ray facilities of the hospital were freely used; though it was not possible to do routine radiography of the chest or examine the cerebrospinal fluid.' The distribution by age groups seems to have been fairly representative of a general working population, there being 290 between 17 and 29, 468 from 30 to 39, 319 from 40 to 49 and 275 from 50 to 64. Only workers actually employed were examined. Twenty employees were excluded because of absence on account of sickness. The report is detailed as to the defects discovered."

In a table containing only the main classifications of the original list *The Journal* shows the following defects found in 1,352 men: heart and blood vessels, 298; digestive tract, including dental, 1,485; lungs, 50; nervous, 18; urinary and reproductive organs, 42; chronic rheumatic, 21, occupational, 8, and miscellaneous, 836.

"Concerning the results," the editorial continues, "the examiner says:

"All the men and women examined were under national health insurance. The general standard of health cannot, therefore, be considered satisfactory. Of the 1,592 examined, 112 (7 per cent) would probably have been rejected for life insurance and might therefore be described as suffering from major disorders; many more would have been weighted. Minor disorders were legion and included bad teeth, dyspepsia, hernia, chronic bronchitis, defects of hearing and vision, anemia, varicose veins and deformed feet.

"Of the 112 men and women in whom major disorders were found, 12 were, or had recently been, under medical care at the time of the examination. Similar records showed that in the case of varicose veins, a minor disorder of the 252 men who had the condition, only 7 had ever consulted their doctors about it. For the most part both major and minor disorders were neglected or unsuspected. Inquiry did not confirm the disinclination to seek advice noted at the Peckham Health Centre, although the workers as a rule sought medical attention only for the alleviation of symptoms which were both unpleasant and disabling. Actually, 50 per cent had seen their doctors during the preceding two years, and 22 per cent between two and five years ago. Most of the major disorders found were symptomless or symptoms which did not interfere with the daily work. The minor disorders were usually quite obvious; they were seen but not perceived. Bad teeth, as far as most of the subjects were aware, were quite natural and normal. Most of the major disorders would have benefited from medical care, if only as management. The minor disorders were largely avoidable and unnecessary; they could have been prevented, controlled or cured.

"These findings demonstrate the value of routine medical inspection or health examination of adults, such as those already taken for granted in the school population. Once organized, regular health examinations would mark a major advance in public health.

"Since this examination is based on a fair sample of the English working population, it seems to offer a challenge to those who claim that compulsory health insurance encourages preventive care, discovers disease in its early stages, assures adequate care of the insured at all times and maintains a higher physical standard for the insured than is found among the noninsured population of a like kind in the United States."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Mrs. J. S. Skobba, 1021 Hume-Mansur Building, Indianapolis
Editorial Board. Term Expires
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943

MAY, 1941

Editorials

CONSERVATION OF VISION

Recognizing the grave importance of this question, THE JOURNAL again devotes a special number to the subject. It is recalled that a year ago a similar number evoked numerous complimentary remarks which were shared by the members of the Association's Conservation of Vision Committee, together with the officials of the Indiana Academy of Ophthalmology and Otolaryngology. These two groups again have collaborated on the present issue and THE JOURNAL takes this occasion to thank them for their productive work.

This subject has in recent years become a most live one; not only has the medical profession sensed its great importance and interested itself accordingly, but the lay public, through the medium of the lay press and the better class of magazines, is being kept advised in the matter. Most of the articles for lay reading are rather well done, some of them exceptionally so. However, there occasionally appears an article that would make better and more understandable reading in a professional journal.

Then, too, the ever-present problem of commercialism creeps in, try as hard as we may to eliminate it. Too many writers on these subjects are seeking self aggrandizement—seem to like the publicity sort of thing. On the whole, we believe the subject is well presented and the reaction is quite to our liking. The American reading public is fast becoming vision conscious.

Here in Indiana we are fortunate in having a live, hard-working committee, coupled with an organization group, the Academy, that annually features conservation in all their programs. At the French Lick session, last October, one of the best attended committee breakfasts was that having to do with conservation of vision; short talks were made by men from all over Indiana, the tenor of their remarks being to the effect that conservation of vision shall be sold to all Indiana folk who read and hear.

Sight-saving classes in our school systems are on the increase; more attention is paid to the correction of refractive errors, though in this field there is vast room for improvement. Too many children are being given glasses as the result of an "examination" without the use of a mydriatic. And by the same token, too many medical men are referring children for eye examinations by those who essay these examinations without the use of "drops." In these days, a physician who decries the use of drugs as preparatory to an eye examination needs a bit more medical education!

There is another field for work in conservation of vision, one that seems to have been pretty much overlooked in recent years, that of more or less serious disturbance of vision due to trachoma. Trachoma is quite prevalent in Indiana, the great majority of these cases being in the southern half of our state. One needs but to study the reports of a special committee that has been investigating this subject in southern Illinois for some years past. Dr. Harry Gradle has served as the head of this committee for some years and has published reports of their findings, reports that should arouse the interest of every medical organization in the Ohio river valley. Thousands of cases were located in the southern sections of Illinois and, after an intensive program of education, treatment, etc., trachoma has ceased to be a menace in that state. However, only recently Dr. Gradle suggested to us that Indiana had plenty of trachoma and that we should do something about it, rather strongly intimating that Indiana was quite near to the State of Illinois.

Yes, there is plenty for our Committee on Conservation of Vision to do; so far they have done a good job and plan to continue their program. They merit the full support of the medical profession of Indiana and the least we can do is to guarantee them full-handed support.

ACCIDENTAL DEATHS

Deaths from accidents of various sorts continue to be one of the leading "killers" in the state of Indiana, as well as in all other states, despite the fact that our various safety programs seem to have been efficacious in industry and in some other lines of endeavor. The fact remains that accidental deaths are on the increase, due of course to the high mortality from automotive accidents.

Most everyone who reads is familiar with the enormous toll the automotive vehicles are taking

throughout the land. Time was, and not so long ago, that such news reports carried the announcement of the death of an individual; now the same medium brings to us, almost daily, the sordid tale of not one death but from two to ten or more, all from the same cause—a crash, a skid off the road, or a contact with a railroad train.

Not all such deaths are from this cause. There still are too many mine disasters; it seems that the deadly mine gases continue to collect in certain mine pockets and, becoming ignited, add to the already long list of victims from mine disasters.

The home and the farm are not exempt from the list of deaths from accident; the latter, as a matter of fact, not so long ago was a very common source of accidents of a more or less serious nature. The farm is fast becoming mechanized and the manufacturers of the various equipment used on the up-to-date farm are making intensive studies of how to prevent accidents from the use of farm machinery.

In the home, again we have modernized; no longer are we dependent upon the family wood lot for the source of our heat and for the kitchen range. The lowly wash tub, that article that did double duty—both Monday morning and Saturday night—has been relegated to the scrap pile; at least about its only use, these days, is to serve as a medium for carrying out ashes and other trash. Yet, in the modern home, we have our toll of accidental deaths; falls of various sorts, contacts with "live wires" and what not. All these have to do with an ever-mounting list of accidental deaths. We legislate, we preach, we implore and beg, that folk be "more careful"; yet accidents continue to happen.

There was a time when we felt called upon to attempt the solution of some of these problems, particularly those connected with the automobile group; now we have just about given up the assignment for the reason that, in our mind, the human equation is the chief factor. We have been thinking of late of the "schooling" which a prospective locomotive engineer must undergo ere he is deemed fit to sit on the right side of an engine cab, with his hand on the throttle, guiding the destinies of numerous lives and an enormous lot of property.

Even after many years of training as a fireman this man may be pronounced unfit for service as an engineer; it may be that his temperament is not of the right sort, or that his "reactions" are too slow, too fast or something else. The fact remains that he is kept on the fireman's side of the engine. Further, through his years of training, a most careful record is made as to his sight, hearing and color perception—all these must be just 100 per cent perfect.

What of the applicants for a driver's license—the adult, we mean? He must have a receipt for his tax bill, be a citizen of the state, and present the declaration of a freeholder to the effect that said freeholder knows the applicant and *believes* him to be of good moral character and of sound mind and body!

Nor shall we enter upon the discussion of the junior drivers, the so-called "high school group." "Boys will be boys and girl will be girls," which in the end means that a group, coming home after the high school dance, occasionally will forget all discretion and step on it. And that act of stepping too often brings the deepest of grief to a group of parents.

So again we say it is the human element on which we shall have to depend for a reduction in the long list of accidental deaths. Industry has made remarkable strides in this direction, chiefly through a long-continued campaign of safety preaching—and this at enormous cost. The problem remains one of the gravest we are facing in our national life.

POISED FOR THE KILL

As yet it is too early to analyze, evaluate, forecast or even hazard a guess as to just what the decision of the Federal court against the American Medical Association and the Medical Society of the District of Columbia will mean to the medical profession throughout the nation. For one thing, definite statements should await the results of the appeal by the American Medical Association. However, one thing is certain: the physicians who made up the original committee of 430—you know the names of some of their leaders, Cabot, Peters, Sigerist, Warbasse, Winslow, Michael Davis—are poised for the kill. Over the radio in the air, from speakers' platforms on the ground, and from their headquarters in New York they are on the alert for "the new order" in American Medicine just as certain leaders of the minority groups in Europe today are waiting for what they term "the new order" of the world.

Here's what happened and is happening now to make us wary of this group who want to change traditional medical practices. While the American Medical Association trial was still in progress, the Cabot-Peters axis partners through an organization known as the "Bureau of Cooperative Medicine" began to step up their propaganda activities, to tell the whole wide world of the beauties of cooperative medicine. They supply the press with a never-ending stream of bulletins; a monthly called "*Medical Care*—Economic and Social Aspects of Health Service" puts out its first issue and Michael Davis, of "The Committee on the Cost of Medical Care" fame, markets a new book entitled "America Organizes Medicine." The news bulletins from the Bureau carry well-prepared briefs on the A.M.A. trial. Then one day comes a communique stating that the name of the Bureau of Cooperative Medicine is changed to "Medical Administration Service." The purposes of "Medical Administrative

Service" will be to act as "both a national clearing house for the collection and dissemination of experiences and a consulting service which will advise on the basis of its aggregate experience. Experts in various fields are an integral part of this new organization."

Immediately we wonder what information such an organization could have that is not already available through the Bureau of Medical Economics of the American Medical Association whose experts are in intimate touch with all situations, experiments in health insurance and methods being planned, or actually in use in the various communities throughout the entire country.

The natural question arises, why the change in name? Can it mean that John Peters, head feuhrer and duce, and Hugh Cabot as minister of propaganda and public enlightenment, believe as do some other great dictators who seek to destroy our democratic world that the time is ripe to supplement the activities of the American Medical Association, or perhaps like other great visionaries that now is the time to get set for the kill and take over the American Medical Association?

ARSENIC AND OLD LACE

"Arsenic and Old Lace" is a play about two nice old ladies who put poison in their home-made elderberry wine which they calmly serve to thirteen unsuspecting, innocent male victims. In their proposed nationwide study of socialized medicine, the League of Women Voters may seem to many doctors to be serving a similar deadly potion to an unsuspecting and innocent public. Like any potent drug, socialized medicine is no topic to be played with by amateurs or novices, and the officers of the Indiana State Medical Association have confidence that the leaders and the more experienced League members will not be satisfied by any superficial, one-sided consideration of a subject as vital as this one. Therefore, if any lay organization is to make a study of socialized medicine, the medical profession of Indiana would rather have the League of Women Voters undertake the task than any other group. The League officers in this state insist that this is not a study of socialized medicine but of health and public health insurance. Those students of medical economics who have had experience feel that in the long run only too often sickness insurance and socialized medicine add up to one and the same thing.

Whether or not the doctors approve of the program undertaken by the League, the study is going to be made during the next eighteen to twenty-four months, and after that the profession may look forward to the time when the League may or may not officially advocate some form of sickness or health insurance. If and when such a step is taken by the League and the well organized, intelligent, experienced group of highly practical politicians that have made the League a potent organization swing into action, the public and the elected officials are going to take notice. Let no one underestimate the influence of the League on both state and national legislation.

The situation being as it is, the duty of the medical profession is clear:

First, the study material kits supplied each study group from the national headquarters of the League should be thoroughly analyzed to make sure that the same thing doesn't take place in the League study that occurred at the time the high school debates on socialized medicine were held several years ago when most of the prepared material handed to the student debaters was propaganda for socialized medicine.

Second, an up-to-date, complete yet concise statement giving the medical profession's viewpoint upon the subject of socialized medicine should be prepared especially and made available to all members of the League. The officers of the League state that they are keen to get material upon the subject from both sides.

Third, and perhaps most important, here at long last is a definite field of activity for the woman's auxiliary. Every physician's wife should know about the study program of the League and those physicians' wives who are members of the League should take an active interest in the study and see that the viewpoints of the medical profession are presented adequately before each local League study group.

BACK AGAIN IN INDIANA

Paul O. Sampson, one of the smartest talkers and salesmen working the American food fad field, is operating once again in Indiana. After an absence of some fifteen years, he is roaming the Hoosier happy hunting grounds, offering his services as a speaker free of charge to any organization or group that will give him a chance to expound his theories under the heading "The Joy of Eats."

Sampson has a great line, a flock of vicarious information, and a wealth of personal experience in giving diet instructions which he claims have relieved distressed humanity of tumors, high blood pressure and other serious ailments. In scientific lingo he talks at length about his accomplishments and apparently impresses his audiences no end.

Noon luncheon clubs and women's organizations are his meat. He charges nothing—absolutely nothing—to appear, but here's the pay-off. During the lecture or at the end of his talk he informs his hearers that *for five dollars* they may obtain his diet guide. Recently at one luncheon club composed of hard-boiled ex-service men of World War I, who are supposed to know their way around, he is said to have sold seventeen of his diet guides and food charts for a tidy total of eighty-five dollars. He also will direct one's diet for six months for the

slight fee of seventy-five dollars. But, of course, his services to any club are rendered absolutely free.

Even the most naive observer must wonder why any one would pay five dollars for a Sampson pamphlet when scientific and authoritative brochures on nutrition, balanced meals and diets may be obtained free of charge merely by writing to the Indiana State Board of Health.

The Better Business Bureau in its report upon Sampson makes the following statement which certainly applies to those who are exploiting the food fad field: "One of the most surprising social phenomena of American urban life is the ease with which self-seeking faddists and fakers in various fields can obtain entree to platforms before various civic organizations. It is this lack of discrimination that makes it possible for persons with no scientific background to pose as authorities on health and nutrition and make an easy living by their wits."

THERE'S MORE WORK TO BE DONE!

Much has been accomplished in the education of the lay public regarding health matters in past years and in that large field it would seem that the subject of prenatal care had received sufficient attention to impress every one of its vast importance. The lay press, including magazines of almost universal availability, have featured authentic articles on this subject for many years. Our Boards of Health have issued innumerable preachments on this subject and various other organizations have devoted much time to the dissemination of information in the matter.

As a result of this campaign, the expectant mother has had the distinct advantage of having been under the watchful eye of her physician during this important period. We had come to believe that the old days were past when we occasionally were routed from our bed to answer the distress call of an expectant father announcing that his wife was going to have a baby and that he wanted a doctor. He was not so particular as to what doctor; he just wanted a doctor.

Since our name is pretty well down in the classified list, it was apparent in all such calls that the anxious father-to-be had started with the first name on the list and that by the time he had reached our name he was getting panicky. We recall one striking instance of this sort, one that we may have previously related, but it will bear repeating: A young man called us, stating that for some reason or another all the doctors in our town seemed to be otherwise engaged, and that his wife needed immediate attention, and would we come right over and help them out? We, of course, inquired as to why he had not engaged a physician a long time ago and his reply was that he did not know it was necessary. He further averred that he had plenty of money in his pocket to pay the tariff but the main thing was that he wanted a doctor. So we promised immediate compliance with his wish and called a local man who gave the necessary attention. This couple has since accumulated a large family; the man has risen in his industrial circle to the point where he is now general superintendent of a large plant and it goes without saying that his wife has had the best of prenatal care with all the succeeding children. That was many years ago but this man, together with some of his progeny, make semi-annual calls at our office repeatedly to thank us for having "taught him the most important lesson he ever learned."

But, there remains work to be done; there still are folk who seem never to have heard of prenatal care, folk who seem to regard childbirth as just another one of those things. So it was a few days ago that we received one of these calls—"My wife is going to have a baby; can you come over?" The matter of engaging a physician for such an event seemed not to have occurred to this young couple. The young man said he was gainfully employed which probably meant that he could afford to pay for such professional services. However, we did not offer to underwrite this case but merely told him he had the wrong doctor and to keep on trying to land some one.

It would seem that with all our activities and with all our propaganda on the subject, there remain some folk to be educated. We sometimes feel that instead of paying an additional fee for one of those "cooing dove" certificates the purchase of which is so naively suggested by some of our county clerks at the time the marriage license is procurred, the young couple would do well to invest a dollar or two in an authorized version of prenatal care, just in case!

Editorial Notes

The American Society for the Hard of Hearing is our authority for the statement that Indiana was the first state to adopt a law making tests compulsory. For many years a rather large Hoosier group has been active in checking these cases in our school system.

The American Medical Association Committee on Industrial Dermatoses has formulated a definition of an occupational dermatosis, as follows: "An occupational dermatosis is a pathologic condition of the skin for which occupational exposure can be shown to be a major causal or a major contributing factor." It is interesting to note that among occupational diseases those involving the skin are in the great majority.

Did you know that Whitfield's ointment, so popularly used as a remedy in cases of ringworm, was never offered by Whitfield for the treatment or cure of this disease? According to Goodman, writing in the March 15th number of the *New York State Journal of Medicine*, "Whitfield described the salicylic acid-benzoic combination in soft paraffin and cocoanut oil (the original formula) as a preliminary application to the thickened horny layer of tinea-infested skin. Whitfield applied chrysarobin in ether, chloroform and acetone as the original fungicide."

"Hoosier Vagabonds," those folk who make a habit of visiting the various state park sections of Indiana, will be somewhat distressed to learn that Greenwood Lake, a beautiful though artificial body of water down in the Martin county forest, is wholly within the territory chosen by the War Department for storage of a huge cache of "T.N.T." In fact, our information is that something like four hundred million pounds of this high explosive will be stored there, at one time or another. We had marked this spot for a vacation call, this summer, but this news proves rather disquieting to one who has no hankerin' to be in the immediate neighborhood of even one stick of dynamite!

June 2-6 is the date; the place, Cleveland; the big event, the annual meeting of the American Medical Association, promising to be one of the outstanding events of the year. Indiana will, as usual, be well represented and in accord with our usual custom we urge an early hotel reservation by those who plan to make the trip. It also is well to remember that official registration is limited to Fellows of the A.M.A. Of course, your local membership card "will get you in," but registration is most important. Better contact your local society secretary and send in a Fellowship application at once.

The Industrial Commission of Wisconsin seems to have reached an agreement with the Wisconsin State Medical Society whereby an "open panel" exists in that state, this of course meaning that such members as indicate their willingness and capability may share in the treatment of industrial cases. The *Wisconsin Medical Journal* makes a strong plea for cooperation between the society and the Commission, particularly in the immediate reporting of the handling of such cases. Here in Indiana we have a considerable group of physicians who are opposed to the present "panel" system, whereby individual physicians or a small group of physicians are engaged by an employing company or an insurance company to look after industrial cases. The Wisconsin experiment will be watched with much interest, we opine.

The Editor of *Minnesota Medicine* makes a strong plea for the enactment of legislation prohibiting the sale or use of fireworks in that state. In this comment, he recites the fact that *The Journal of the American Medical Association* long ago found this subject of sufficient importance to make an annual survey of injuries due to fireworks. He also cites the marked decrease in such cases following the enaction of legislation regulating the use of these dangerous explosives in many states. While we still are "for" most any and all forms of celebrations by our young folk, we maintain that such exuberances must be held in check. The safe and sane communities, in this regard, are those who arrange a Fourth of July fireworks display, carried out by experts who know how to handle these dangerous things.

The story going the rounds to the effect that a western physician has billed the Republican National Committee in the rather sizable sum of thirteen thousand dollars as his fee for keeping Wendell Willkie's voice going during the late Presidential campaign has us "up a tree." Brought to mind the numerous times when we were called upon to attend our old friend, Jim Watson, during his numerous campaign visits to Lake County, back in the days when said Jim was urging everyone to "vote for Betsy and the baby." It seemed that every time Jim hit our bailiwick his voice went back on him, so we painted and sprayed until we had him in good running order. But not once did we submit a bill to anyone for said services; guess we must have done it for the glory of the party!

The National Research Foundation for Eugenic Alleviation of Sterility, Inc., has sent out a report of such work in various parts of the country. The report affords an interesting study. "The total number of children produced by artificial insemination in the United States, up to June, 1940, is 9,238." Such an announcement seems astounding to most of us, even though we knew that many such inseminations are being made throughout the country. It is stated further that 1,357 mothers had more than one pregnancy through such means. There were three sets of twins in the whole series of cases. The number of inseminations ranged from one to twelve ere a pregnancy was had. There were 217 miscarriages and abortions noted in this group of cases.

The health officer of Toronto, Canada, a city of more than 800,000 population, reports that there was not one case of diphtheria occurring within the borders of that municipality during 1940. Many other sizable cities have all but eradicated this disease, while several of the smaller communities have been able to make an equally good showing.

There is no question but that great advances are being made in diphtheria control, all of which we are pleased to record; but the point is, why should there be diphtheria any place in this country? It is one of the diseases that can be absolutely controlled, and in that control many lives will be saved. Let the campaign for universal anti-diphtheria inoculations be carried on with increasing vigor!

We mentioned fishing, in connection with a "kitty-cornered" tour of Indiana recently. On that same trip we passed on two sides of what is generally known as the "proving ground," several thousand acres of land in southeastern Indiana that recently has been taken over by the federal government to be used in testing the various types of guns used in warfare. As we drove along for some fifteen miles or so, here and there we saw a farm homestead, completely deserted; not even a chicken in the yard or a pig rooting in the nearby field. Made the lumps come into our throat, thinking of those who had been forced to abandon the homes that in many instances had been theirs for generations past, all because of conditions in Europe. Sherman is said to have remarked, "War is hell!" His statement of the case was mild.

As we have mentioned on several occasions, South Bend continues to be the "gum drop capital" of the country. It seems the per capita consumption of this delectable treat reaches its peak in that city. All of which has rankled in the hearts and minds of those in our capital city, so they proceeded to do something about it. Now comes the announcement that Indianapolis leads the country in at least one particular, that of the consumption of the lowly, yet wholly necessary bun. A bakery official of that city is responsible for the statement that Indianapolis folk lead the world as bun eaters. We readily believed the tale since on several occasions a downtown tavern operator—carrying on in a rather small room—has told us that he buys one thousand pounds of beef brains each week to satisfy the demand for that particular kind of sandwich. A half ton of meat of any sort calls for a lot of buns when made into sandwiches.

We haven't had much to say of late about culinary matters, but an item in the Indianapolis newspapers has brought the matter to our attention. It concerned the closing of "Pop" June's "Down East Oyster House," an Indianapolis institution of more than ordinary merit. 'Way back in our medical school days, "Pop" June was a famous sea food caterer. He knew more tricks about the preparation of oysters, clams, and lobsters than any chef we ever have known. He was the first chef to broil an oyster west of the Atlantic coast, and back in the old days, when "Pop" presided in person, his place was the mecca for all who loved sea food. We well recall the man, now long since gone, as he went about his daily tasks in his restaurant, his long, immaculately white beard giving him a very distinguished appearance. We recall going to see him, after his demise, as he lay in state in the old Elks' club rooms, then on Meridian street, just north of Ohio street. Many members of the medical profession will join with us in regretting the closing of this famous eating place.

Dr. Charles J. Whalen, long-time editor of the *Illinois Medical Journal*, died at his Chicago home recently. He was seventy-two years of age. Dr. Whalen had a long, brilliant career as a member of the medical profession, as an editor, as a health officer and in the field of medical research. During the Spanish-American war, he discovered a specific cure for malaria. He was a former president of the Chicago and the Illinois medical societies and of the American Medical Editors Association. In turn, he taught at Rush, Loyola and the Chicago Polyclinic. He was a member of numerous special medical organizations, his later professional life having been devoted to otolaryngology. Dr. Whalen was an editor of the dynamic type; during the past decade the editorial columns of the *Illinois Medical Journal* were chiefly devoted to discussions of the many medico-economic problems. He attacked administration policies that appeared to be inimical to the better interests of the profession and at times his pen sent forth material of a most scathing nature. A bit verbose at times, "Charley" Whalen thoroughly covered his subject. The medical profession has lost a most devoted member and the medical press has lost one of the few remaining editors of the old school.

We're in quite some dither over the developments of the anti-trust suit against the American Medical Association, for the federal court has held that the Association is guilty, along with the Medical Society of the District of Columbia, *but that the officials of these two organizations are not guilty!* We spent no little time trying to work out this thing, but to no avail. A few days later we came across this headline, in a metropolitan newspaper: "Union Boycott is Ruled Legal by United States Supreme Court." With our non-legal mind we worked out the notion that this high court had decided that unions were not amenable to the anti-trust law. So, a union, it seems, gets by, while the medical profession, through the parent organization, is found guilty. Maybe those two Lake County chaps were right about this thing when, in all seriousness, they made inquiry as to what would be the status of the local society in case

it made application for a charter from the American Federation of Labor! In passing, it might be stated that said inquiry was not taken seriously at association headquarters; our reply was to the effect that headquarters would like to know if we were serious about it. We were!

Now, Indiana is going to do something about fruit standards, long after many states have legislated upon the matter. For many years, for example, Michigan apples have been standardized. The buyer of a bushel basket of this fruit is enabled to know just what he is getting, not only as to grade, but also as to the size of the fruit in the container. The Wenatchee Valley apples—Washington—long have been graded in this manner. For years we have made our fall purchases of these fruits, knowing that when the box is labeled "extra fancy" and bears the numerals from fifty-six up to two hundred we are getting just that. Berries of various sorts are included in the new listings so henceforth the shopper, if he takes the time to look for it, will be able to know just what he is buying. Somehow or other, a lot of folk do not know that meat is graded according to the United States standard. One Chicago packing house puts out several grades of beef: Premium, Select, and one bearing but the name of the packer. Lower grades are not thus labeled. Better look into these things and see what you are getting for your money.

We are beginning to wonder what is wrong with "official" Washington. We had just about become tuned in to the anti-trust-law charge against the American Medical Association, together with numerous other indictments aimed against other organizations and corporations when the news came that Eli Lilly and Company, Sharp and Dohme, and E. R. Squibb and Sons had been indicted because of their alleged control of the manufacture and control of insulin. The early history of insulin is known to most medical men; the fact that the process of manufacture was patented is known to all, as well as the fact that the preparation and the marketing of the product was limited to a very few pharmaceutical companies. To all this the medical profession was in accord, since it assured us of a safe product and at a fair price. It is, of course, true that in the early days insulin was an expensive luxury, but since then, according to Eli Lilly, there have been thirteen reductions in price. Today, insulin costs the consumer just three and one-half per cent what it did when it first was introduced. We need not launch into a discussion of the merits of the matter, save to say that had there been no exercise of control over this product the market would have been flooded with an inferior drug. One can but wonder what might have happened had certain of the vitamins been thrown into an open market. As it is now, vitamins are well under control and the prescriber is assured that when he orders certain of the products for his patient, that is just what the patient is going to get. No stretch of the imagination is required to think of the lives that might have been saved had sulfanilamide and sulfathiazole been patented, thus placing them under some degree of manufacturing control. Again, one wonders about the patent medicines; they seem to be under control and the manufacturers thereof exempt from federal prosecutions.

The Indianapolis *News* editorially comments on "American Health" in their issue of April 4, 1941, as follows:

American Health

"Surgeon-General Thomas Parran, of the United States public health service, has reported, upon returning from a survey of conditions in England, that the public health of this country is a 'national disgrace.' He said that worse sanitary conditions prevail around some of this country's defense projects than in the British air raid areas, and that the rejection for physical reasons of 30 to 40 per cent of Americans called up for the draft presents 'a public health problem to challenge the maximum intelligence of American medicine and public health.'

"Considering the great advances that Americans have made in house plumbing and public sanitation, there is no good excuse for failure to begin the expansion of defense projects with a provision for adequate sanitary facilities. Failure to take this step is due solely to bad planning.

"As for the poor physical condition of draftees, it is conceded that army regulations are somewhat more severe than they were a few years ago, but they still do no more than require that a recruit be physically qualified to perform ordinary manual work. The army does not call for supermen or even extraordinary men. It merely asks for recruits in whom it can build the physical endurance of an average able-bodied man.

"Since the sanitary shortcomings of the defense program can be corrected by easily available means, and most of the defects that bar more than one-fourth of the draftees from service can be repaired by following the advice of a physician, it seems that Dr. Parran is not far wrong in classing the situation as a 'national disgrace.' "

The above comment carries no news to members of the medical profession. World War I brought to light the fact that a large proportion of our population was not wholly physically fit and the medical profession announced its readiness to cooperate in bringing about the desired change in health conditions, but to little purpose. Today, we stand ready to assist in the correction of the many physical defects elicited by the present selective service examinations but unless the defectives place themselves in our care we can do little about it.

District Meetings

FIRST COUNCILOR DISTRICT

President, Stephen Johnson, M.D., Evansville
Secretary, O. M. Graves, M.D., Princeton
Councilor, I. C. Barclay, M.D., Evansville

PRINCETON, PRINCETON COUNTRY CLUB
MAY 8, 1941

Principal speaker will be Cyrus J. Clark, M.D., of Indianapolis.

SECOND COUNCILOR DISTRICT

President, Robert Moore, M.D., Vincennes
Secretary, J. S. Brown, M.D., Carlisle
Councilor, H. C. Wadsworth, M.D., Washington

VINCENNES, ELKS CLUB—MAY 27, 1941

Program

5:00 p.m. Business meeting and registration
5:30 p.m. Motion pictures
6:30 p.m. Dinner at Elks Club
8:00 p.m. Talk—speaker will be announced later
9:30 p.m. Adjournment

THIRD COUNCILOR DISTRICT

President, John P. Gentile, M.D., New Albany
Secretary, Ivan Clark, M.D., Paoli
Councilor, W. H. Garner, M.D., New Albany

This meeting is scheduled to be held in New Albany but no definite date has been set for the meeting.

FOURTH COUNCILOR DISTRICT

President, George S. Row, M.D., Osgood
Secretary, J. T. Carney, M.D., Batesville
Councilor, J. C. Elliott, M.D., Guilford

BATESVILLE—MAY 21, 1941

Program

2:00 p.m Speaker—Howard McIntyre, M.D., Cincinnati
3:00 p.m. Speaker—D. H. Row, M.D., Indianapolis
4:00 p.m. Speaker—John Warvel, M.D., Indianapolis
6:30 p.m. Banquet
Speakers—
A. M. Mitchell, M.D., Terre Haute
Mr. Thomas Hendricks, Indianapolis

FIFTH COUNCILOR DISTRICT

President, John Palm, M.D., Brazil
Secretary, J. V. Richart, M.D., Terre Haute
Councilor, O. O. Alexander, M.D., Terre Haute

TERRE HAUTE, TERRE HAUTE HOUSE
MAY 2, 1941

Principal speaker will be A. R. Barnes, M.D., Chief of the Section of Cardiology, Mayo Clinic, Rochester, Minnesota. His subject will be "Significant Objectives in the Treatment of Heart Failure."

SIXTH COUNCILOR DISTRICT

President, W. U. Kennedy, M.D., New Castle
Secretary, J. E. Ferrell, M.D., Fortville
Councilor, Samuel Kennedy, M.D., Shelbyville

COUNTRY CLUB, NEW CASTLE—MAY 16

Program

10:00 a.m. Business meeting
10:10 a.m. Welcome
Dr. R. L. Amos, President, Henry Co. Society
10:15 a.m. Symposium—Blood and Plasma
1. Preparation and Preservation
C. G. Culbertson, M.D., Indianapolis
2. Clinical Applications, Blood and Blood Plasma
F. W. Taylor, M.D., Indianapolis
11:15 a.m. The Army Medical Service and the Doctor
Lt. Col. I. H. Willett, M.C., U.S.A.
12:00 Lunch
1:00 p.m. Recognition and treatment of obstruction of small bowel
D. F. Cameron, M.D., Fort Wayne
1:45 p.m. Medical paper
2:30 p.m. X-ray diagnosis. P. D. Moore, M.D., Muncie
3:15 p.m. Medical moving pictures

SEVENTH COUNCILOR DISTRICT

President, Russell Sage, M.D., Indianapolis
Secretary, E. W. Dyar, M.D., Indianapolis
Councilor, C. J. Clark, M.D., Indianapolis

This district usually holds its meetings in the fall.

EIGHTH COUNCILOR DISTRICT

President, J. S. Robison, M.D., Winchester
Secretary, V. K. Stoelting, M.D., Winchester
Councilor, E. H. Clauser, M.D., Muncie (acting)

This meeting is scheduled to be held in Winchester, June 11, 1941, but no program has been received in time for publication in this issue.

NINTH COUNCILOR DISTRICT

President, S. B. Sims, M.D., Frankfort
Secretary, F. A. Beardsley, M.D., Frankfort
Councilor, F. T. Romberger, M.D., Lafayette

FRANKFORT—MAY 22, 1941

Program

9:00 a.m. Registration
9:00 a.m. Golf
12:00 noon Luncheon and meeting of delegates

(Ninth District Program)

1:45 p.m. General meeting
Address of Welcome
M. F. Boulden, M.D., Frankfort
Response
F. T. Romberger, M.D., Lafayette

2:00 p.m. "Colles Fracture"
George J. Garceau, M.D., Indianapolis

3:00 p.m. "The Use of New Preparations in Obstetrics and Gynecology"
Frank W. Peyton, M.D., Lafayette

4:00 p.m. "The Clinical Significance of Ano-Rectal Disease"
Homer H. Wheeler, M.D., Indianapolis

6:00 p.m. Banquet
F. T. Romberger, M.D., Toastmaster
"Romance and Venereal Disease"
A. F. Weyerbacher, M.D., Indianapolis
Ladies' entertainment

1:00 p.m. Luncheon bridge

TENTH COUNCILOR DISTRICT

President, J. Robert Doty, M.D., Gary
Secretary, M. Shellhouse, M.D., Gary
Councilor, James M. White, M.D., Gary

GARY—MAY 14, 1941

Program

"Vitamin B"
Hugh Martin, M.D., Indianapolis
Movies on "Vitamin B"

"Heart"
Clifford Straehley, M.D., Cincinnati

"Allergy of the Nose"
Samuel Feinberg, M.D., Chicago

"Endocrines"
Speaker to be announced later

ELEVENTH COUNCILOR DISTRICT

President, C. R. Herd, M.D., Peru
Secretary, O. G. Brubaker, M.D., North Manchester
Councilor, Ira Perry, M.D., North Manchester

KOKOMO—MAY 21, 1941

Program

10:30 a.m. Clinic—"Renal Diseases"
Wayne L. Ritter, M.D., Indianapolis

12:30 to 1:30 Luncheon.

2:00 p.m. Business and scientific program
I. Presidential address
C. R. Herd, M.D., Peru
II. "Chest Injuries, Abdominal Injuries, and Fractures of the Extremities"
William R. Cubbins, M.D., Chicago
General discussion
III. "Blood Pathology"
E. B. Jewell, M.D., Logansport
General discussion
IV. "Treatment of Renal Hypertension"
Wayne L. Ritter, M.D., Indianapolis

6:30 p.m. Banquet
Speaker—Hon. Homer L. Chaillaux
Entertainment by American Legion
Selections by McKinley Children's Choir

Afternoon tea will be served to the ladies.

TWELFTH COUNCILOR DISTRICT

President, Paul A. Garber, M.D., South Whitley
Secretary, S. R. Mercer, M.D., Fort Wayne
Councilor, H. L. Murdock, M.D., Fort Wayne

The annual meeting of the Twelfth Councilor District was held in Fort Wayne on April first. Report published on page 282 in this issue.

THIRTEENTH COUNCILOR DISTRICT

President, Fred G. Perry, M.D., Plymouth
Secretary, Louis A. Bixler, M.D., South Bend
Councilor, Alfred Ellison, M.D., South Bend

Meeting will be held in South Bend in November.

President's Page

Dear Doctor:

I hope that the lawsuit in the District of Columbia is out of the way. The decision is not understood by the doctors, and I believe that there are many other individuals in the same boat.

A new questionnaire on medical defense was sent to your society, and I trust it has been returned to the state M-Day committee. The questions were hard to answer, but I am sure that almost every county society has done a good job in complying with the request.

The Indiana League of Women Voters is going to study the question of Socialized Medicine. After the study is completed, the League will decide whether it is for or against Socialized Medicine, and the answer will be sent to the national headquarters. If the majority favor the study, the national organization will sponsor the survey; otherwise, the League will probably drop the question. I believe it is important for the doctors' wives to attend these meetings so they can give the League all the information possible on this subject.

Two laws were passed by the last legislature which will need the cooperation of the medical profession. One law provides that all school teachers shall be required to be examined for tuberculosis, and the other law stipulates that all school children shall have their hearing tested.

Doctor, has the health program of the National Youth Administration been explained to you? The secretary of your county medical society has all the information on this subject.

I will see you personally at your district meeting this month.

Very truly yours,

MEDICAL AND HOSPITAL CARE OF OLD-AGE PENSIONERS UNDER NEW LAW

LEO X. SMITH*
INDIANAPOLIS

According to a new law,[1] passed by the 1941 session of the State Legislature, persons receiving old age assistance, aid to the blind, or dependent children may receive medical, surgical or hospital care through their county welfare department, beginning January 1, 1942.

Popular interest in the new act was caused by raising the ceiling for grants in cases of old age assistance and aid to the blind from a maximum of $30 to $40 per month, dependent upon needs and circumstances in each case. In cases of dependent children, the maximum remains the same, $20 for the first child, $18 for the second and $12 for the third.

Little was said regarding the fact that the new law will permit grants by county welfare departments for medical, surgical or hospital care, but this is of paramount interest to all physicians, hospitals and township trustees. "Townsendites," the aged and the press gave most of their attention to the maximum grant feature.

FEDERAL PARTICIPATION

The new law permits a variety of grants. A few of the characteristics should be described.

1. The federal government has certain requirements to be met before it will make reimbursement for any funds advanced and spent for welfare purposes. If federal reimbursement is expected, a welfare department cannot remit direct to a physician, surgeon or hospital for services rendered, but the sum must be paid direct to the welfare recipient who is expected to pay these bills. Physicians and hospitals probably disagree with this federal requirement, but Washington, rather than Indiana, should be looked to for any change.

2. The law is not mandatory but permissive. The county welfare department *"may, after adequate investigation,"* authorize such medical, surgical or hospital care.

3. The county welfare department may only pay the reasonable value of such care so authorized.

4. If federal reimbursement[2] is expected, a county welfare department cannot pay in one month in excess of the maximum grants fixed by the new law, for both assistance to recipients and medical, surgical or hospital care. However, payments for such extra care, in excess of the monthly maximum grant, may be carried over and made during a number of months until the bill is paid in full.

ALTERNATIVE PLANS

Flexibility of the new law also permits payment of medical and hospital bills direct to those who render the service, rather than through the welfare beneficiary, but federal reimbursement on those sums is forfeited.

Or, the Welfare Department may grant medical and hospital aid beyond the statutory maximum grant ($40 for old age assistance, etc.) and receive federal reimbursement up to the maximum, the excess then to be borne by the state and county. That plan probably will not be used.

Inasmuch as the federal government requires that any check for grants to which it contributes be cashed by the welfare beneficiary, upon his death those contributions cease. Payments may then be made direct to the physician or hospital after death of the welfare beneficiary at the discretion of the welfare department, but again federal reimbursement is lost. The county and state would bear that expense.

Any plan used requires prior "adequate investigation," thereby excluding emergency cases, and only permits reasonable pay for the services rendered.

HOSPITALS AND PHYSICIANS INTERESTED

Physicians, surgeons and hospitals are interested in the application of this new law. Some observers believe that welfare recipients will receive better care because of certainty of jurisdiction by the welfare department together with well defined plans. Those who render the services will know to whom they may look for compensation and when payment may be expected. In addition, more attention will be given by the various county welfare departments to medical and hospital needs of the beneficiaries because money will be available for that specific purpose. There is a wide belief that the welfare laws will more generally approach their true intent, the complete care of those accepted for assistance.

I harbor no fear that this law is a step towards socialized medicine. The details are not statutory, but subject to suitable regulations of the state department of public welfare. The fact is that the existing law now assumes medical and hospital care of welfare beneficiaries without proper provision for carrying it out. The new law makes respectable provision for that care. I firmly believe that the medical profession, the hospital group, township

---

* Legal adviser Indiana Township Trustees Association.

[1] Chapter 142, Acts of 1941. Amends secs. 34, 54 and 72 of Acts of 1926, Chapter 3; Burns supplement 52-1203, 52-1223, 52-1241 respectively.

[2] Source of welfare funds. Old age assistance: federal 50%, state 30%, county 20%. Blind assistance: federal 50%, state 50%. Dependent children: federal 50%, state 30% and county 20%.

trustees and those citizens who abhor socialized medical and hospital care, if necessary, could successfully combat any undesirable tendencies in regulations and make themselves heard in no uncertain terms.

The new statute will undoubtedly relieve townships of much of the burden now carried by taxpayers. Trustees have complained about current practices, asserting that welfare recipients erroneously come to the township for all medical and hospital care, seeking anything from a prescription to a major operation all of which is paid one hundred per cent by local township taxpayers. If the care is provided in conformity with federal regulations, they claim that 50 per cent of the cost will be borne by the Federal government.[2] In cases of old age assistance and dependent children, it will mean a saving to township taxpayers of 80 per cent, they assert, and in aid to the blind, 100 per cent.

If an alternative plan without federal aid is used, the cost will be spread over the state and county, rather than against the township alone.

There is no provision in the new law for emergency medical care inasmuch as the statute permits expenditures only "after adequate investigation." Emergency care will be provided as now, under existing procedure, through other sources or at township expense.

The State Department of Public Welfare will have ample time to formulate its policies so that they may become effective January 1, 1942. All concerned will be afforded the opportunity of becoming acquainted with the new procedure, and the precise methods of handling cases involving welfare recipients will be fully explained.

Any present discussion of this new statute must necessarily be made in general terms only.

EXISTING LAWS

Present laws providing grants for the aged and blind specifically state that the recipients shall not *"at the same time, receive any other public relief from the state or from any municipal corporation, instrumentality or political subdivision thereof, except for temporary medical and surgical assistance, and necessary hospital expenses."*[3] When the original welfare legislation was enacted, the assumption was that all current needs of beneficiaries would be cared for. Claims were made that poor relief would be materially reduced. The new statute does not change these provisions.

In actual practice, many welfare recipients now receive grants which include sums to be used for medical examinations, prescriptions, etc. With human nature what it is, these recipients spend this money otherwise, then seek further aid from the township trustee, thus causing continual friction.

A recent investigation in Indiana disclosed that a fair estimate of hospital and medical care granted by townships as supplemental aid to those already receiving welfare grants approximates $468,000 yearly. In addition, about half that sum is paid out for food, clothing, shelter and other items to those recipients.

Again emphasis is laid upon the fact that this new law is not effective until January 1, 1942.

[3] Acts of 1936, sec. 33, page 12; Burns 52-1202. Acts of 1936, sec. 53, page 12, Burns 52-1222.

TRACHOMA IS REPORTABLE DISEASE

The Committee on Conservation of Vision has been giving study to the trachoma problem in the State of Indiana. It has been discovered that very few cases of trachoma have been reported to the State Board of Health, although trachoma is a reportable disease. The members of the Committee on Conservation of Vision will be deeply grateful if the members of the State Association will report to the State Board of Health any cases of trachoma which may come under their care. This will aid in the accurate determination of the distribution of trachoma in our State, as well as in taking the necessary steps for the treatment and control of this disease.

TWENTY-FIVE YEARS AGO

Scientific articles were presented by Miles Porter, Fort Wayne, who discussed "Surgical Diseases of the Stomach," A. C. Kimberlin, Indianapolis, who spoke on "Early Diagnosis of Tuberculosis"; "Thoracoplasty," by W. D. Gatch, Indianapolis; "Renal Functional Test in Surgery," by T. M. Jones, Anderson; and "Surgical Disorders of the Femur," by B. P. Weaver, Fort Wayne.

* * *

The editorials concerned Blood Transfusion, Typhoid Vaccination, Unbiased Surgery, Operating Room Illumination—Bulson was becoming presbyopic!—and one on the question as to whether doctors were charging fees for a trade or a profession. (Were Bulson here now we might tell him that the United States District Court says we are a trade.)

* * *

The Fort Wayne Medical Society had begun making plans for the annual meeting of the Indiana State Medical Association to be held in that city in September.

* * *

Bulson did quite a bit of raving because of the fact that Christian Science burial services had been held over the remains of a regular practitioner of medicine. He declared that he had some solace in the fact that the deceased did not know what was taking place!

He also continued on one of his pet themes, that of having an alert, wide-awake and up-and-doing county medical society secretary. (The same conditions apply as of today.—Ed.)

* * *

The *Warsaw Times* and the *Goshen News* has refused to carry the advertisements of the "United Doctors."

* * *

The new addition to Methodist Hospital, Indianapolis, was ready for occupancy.

* * *

Twenty-five members of the Elkhart Medical Society had an outing and chicken dinner at Lake Wawasee, April twentieth.

* * *

Thirty-four acres had been added to the property of the Southeastern State Hospital, at Madison.

* * *

Work had begun on the new Bartholomew County Hospital, at Columbus.

East Chicago had begun a campaign for a $100,000.00 hospital program.

* * *

Dr. W. T. Gott, Crawfordsville, had been reappointed to the State Medical Board by Governor Ralston.

A.M.A. SURVEY ON AVAILABILITY OF PHYSICIANS

A questionnaire from the American Medical Association in regard to minimum requirements of medical personnel needed in a community to care for the civilian population in the event of an emergency has been sent to each county medical society. Answers to the questionnaire have been received from most of the societies. However, several of the societies had some question in regard to certain phases of the questionnaire. These questions were transmitted immediately to the American Medical Association, and the letter from R. G. Leland, M.D., on behalf of the Committee on Medical Preparedness of the American Medical Association, for whom this information is being collected, states the reasons why the county medical societies were asked to supply this data, rather than attempting through some centralized bureau to compile the information which it is felt the Government may need in the event of a national emergency.

While we are in accord with the general plans of this committee, some of our county societies have entered serious objections to the section indicated by the number "9." This reads, "to report to the Committee on Medical Preparedness a list of names of physicians from each county of the state whose services are believed to be necessary for the maintenance of civilian health and who should, in the opinion of the State Committee on Medical Preparedness, be exempt from military service." The objections to this are obvious. "Who in the average county medical society is there to say that this man shall enter service, this man shall remain at home? As it comes to us from many sources, it seems that the wording of this clause is most unfortunate. No man in *our* medical society—and it is rather a large one—has authority to make such decision, writes one objector."

COMMITTEE ON MEDICAL PREPAREDNESS
AMERICAN MEDICAL ASSOCIATION

April 11, 1941.

Mr. Thomas A. Hendricks,
Indiana State Medical Association,
Hume Mansur Building,
Indianapolis, Indiana.

Dear Mr. Hendricks:

The co-operation which state and county medical societies and individual physicians give in the medical preparedness program is, as I am sure you will understand, an entirely voluntary effort. It is hoped, however, that all medical societies and physicians will appreciate the desirability of providing such information as will enable the Committee on Medical Preparedness and the governmental agencies to ar-

Annual Convention
Indiana State Medical Association
Indianapolis, September 23, 24, 25, 1941

range the medical services for the military establishment and for the civilian population in the most efficient manner. The appeal to county medical societies to indicate the number of personnel needed to provide medical care for the civilian population seems to us a reasonable request since the local medical profession is in a much better position to judge the minimum requirements for continuous medical services to the civilian population than could possibly be made in some central point such as Chicago or Washington.

Moreover, the Committee on Medical Preparedness, in outlining the activities and functions of state chairmen for state committees on medical preparedness, included the following: "9. To report to the Committee on Medical Preparedness a list of names of physicians from each county of the state whose services are believed to be necessary for the maintenance of civilian health and who should, in the opinion of the state Committee on Medical Preparedness, be exempt from military service."

It is, of course, no desire or intention on the part of the Committee on Medical Preparedness to put the county medical societies "on the spot." The facts are that evaluation of local needs, if carefully and honestly done, can be made best by the county medical societies.

Complaints have been made from several quarters that local communities have been robbed of their medical personnel by the orders placing their local physicians in military service. Although the Committee on Medical Preparedness cannot guarantee that physicians will not be called into service, every effort will be made to indicate to the Surgeon General of the Army the minimum needs that ought to be considered for the maintenance of the health of the civilian population. The basis of such representations to the Surgeon General, in our opinion, should be provided in these reports from the county medical societies.

If the county medical societies do not wish to list the names of physicians who should be exempt from military service, it will be sufficient for our needs, in these instances, for them to give us merely the statistical report on Form Number 1.

I hope you will be able to explain this request to the county medical societies in your state in such a way that they will understand that this is merely an effort to give the local communities an opportunity to indicate the number of physicians, and preferably the names of those physicians who should be exempt from military service in order that the health of the civilian population will not suffer.

Sincerely yours,

R. G. Leland, M.D.,
Committee on Medical
Preparedness.

In a subsequent letter, Dr. R. G. Leland makes this comment in answer to the question as to whether or not any arbitrary figure has been set as to the number of patients a single physician would be able to serve:

"No arbitrary figure can be set for the number of physicians necessary to care for the health of the civilian population. However, we have considered tentatively a figure of one physician to about 2,000 of the population. You can understand that this figure could not be used under all circumstances since there might be a community with an aged physician or one whose health does not permit strenuous work, both of whom would need help to serve the medical needs of a community. After all the local profession should be able to judge best of their minimum requirements."

UNDER THE CAPITOL DOME

PUBLIC WELFARE ASSISTANCE

Nearly thirteen persons out of every 100 living in Indiana are receiving some kind of public financial aid, according to the latest information released by the State Department of Public Welfare. The exact figure is given as 12.8 per cent of the population. The department showed that 438,572 persons were receiving the various types of aid. Of this number, 141,741 were getting general relief; 174,412 were on WPA jobs, and 122,419 were receiving some one of the various security aids. The tabulation was made as of September.

Comparison with the previous June showed a reduction in the total number of persons receiving public aid, but the decline was due entirely to a curtailment in WPA employment. Other forms of relief increased. The number receiving general relief in June was 136,083, and in September, 141,741; those receiving security aid totalled 121,594 in June, and 122,419 in September. WPA employment dropped from 195,120 to 174,412 during the period.

The department called attention to the fact that there was small change in the number of persons included in the security aid program, which in September was only 2.5 per cent greater than in the same month of the preceding year.

The greatest public assistance load was carried in 1938 and the early part of 1939, and has been dropping almost constantly since that time.

The old-age assistance program more than doubled in a five-year period from June, 1936, to June, 1940, the department's records showed. At the beginning of the period 31,576 persons were receiving this type of assistance. By June, 1940, the number had reached 66,062. Blind assistance was given to 1,068 persons in 1936, and to 2,431 persons in June, 1940. The number of children receiving child welfare services increased from 7,849 in October, 1936, to 11,649 in June, 1940. The number of children receiving services for crippled children increased from 293 in April, 1938, to 889 in June, 1940.

A financial picture of the public welfare expenditures for fiscal years ending June 30, 1936, through June 30, 1940, showed the following figures: 1936 total, $928,631.57; 1937 total, $9,322,634.87; 1938 total, $15,229,351.15; 1939 total, $20,076,341.58, and 1940 total, $24,091,459.36.

For the last year, 1940, the federal government contributed $10,092,739.49 toward the total cost; the state paid $8,280,441.79; and the counties $5,718,278.08. In 1937 the comparative contributions to cost of the program were: Federal, $3,562,696.71; state, $2,632,761.39; and counties, $3,127,176.77.

Study of the public aid load by counties showed that thirty-eight of the ninety-two counties had, as

of September, less than 10 per cent of their population dependent on the various aid programs. The lowest percentage in this group was Dubois, with 3.8 per cent. Forty-two of the counties had between 10.1 and 20 per cent on the rolls, and nine had between 20.1 and 30 per cent. Three counties, Lawrence, Sullivan, and Vermillion, had more than 30.1 per cent, with Vermillion the highest, with 39.9 per cent of its population receiving public aid.

STATE BOARD EXAMINATION

The annual examination of applicants for licenses to practice medicine in Indiana will be conducted by the State Board of Medical Registration and Examination in the Claypool Hotel in Indianapolis on June 17, 18, and 19.

Approximately 140 graduates of medical schools will take the examination which will be conducted by the full board. Of those who will take the examination, 110 are graduates of the Indiana University School of Medicine. A total of 131 candidates took the 1940 examination.

The medical board will hold its regular semi-annual meeting on July 8 in the Hotel Lincoln in Indianapolis.

LICENSE REVOKED

The Indiana license of Dr. Lewis P. Jackson, who practiced in Ohio many years, was revoked by the Indiana State Board of Medical Registration and Examination at a meeting on March 31. Dr. Jackson had been convicted of a felony, and his license, isued in 1898, was revoked for that reason.

GOVERNMENT EXPENDITURES

Indiana and its political sub-divisions spent $10,948,049 last year for health and sanitation work, slightly more than one-twentieth of the total that was expended for all governmental functions, according to a compilation of governmental expenditures just completed by the State Division of Accounting and Statistics.

As in past years, the highest cost was for education, which for the fiscal year was $76,444,183, representing 37.26 per cent of the total governmental costs.

Charities and corrections made the second biggest item on the public's bill, with costs for this item amounting to $43,274,723, or 21.09 per cent.

Highways and bridges, costing $31,653,315, accounted for 15.43 per cent of the total governmental cost; general governmental cost $19,757,390, or 9.63 per cent.

The cost of protecting life and property—police department, fire department, sheriffs, et cetera, amounted to $17,258,163, or 8.41 per cent of the total.

Recreational activities in all governmental units accounted for $2,498,947, representing 1.22 per cent. Conservation and the development of natural resources amounted to $3,235,512, or 1.58 per cent. The remaining $92,135 was listed as miscellaneous expenses.

The report showed that the amount expended for health and sanitation was $3.33 for each Hoosier citizen, while the per capita cost for charities and corrections was $13.18.

A comparison with the preceding year showed a general increase for the 1940 fiscal year amounting in over-all expenses to $13,169,078, or 6.86 per cent.

Last year's expenditure for charities and corrections was 11.34 per cent greater than for the fiscal year of 1939, and for health and sanitation, 36.71 per cent greater—the total 1939 expenditures being $8,008,010.

The report showed that the ninety-two Indiana counties spent $116,573 for the care of the insane and mental defectives. For health commissioners, nurses, and miscellaneous health expenses, the counties spent a total of $480,843, and for hospital operation, $2,280,023.

Other items listed under charities and corrections by the report for the counties included: misdemeanants and delinquents, $850,539; old age assistance, including state contributions, $12,920,306; child welfare, $6,898,483 (also including state contributions); welfare department operation, $1,559,680 (including state contribution); infirmary operating, $1,539,371 (including $245,177 for infirmary constructions and improvements); orphanage operating, $296,515, and other charities, $170,951.

Indiana's cities spent $1,689,452 for sewage and garbage disposal, and $1,100,296 on hospitals and cemeteries. The boards of health and public nursing bill for the year was $619,546. Construction of health and sanitation units cost $3,418,849. A total of $1,776,194 was spent on parks, pools and playgrounds, and $135,057 on the construction of recreation facilities.

Civil towns spent only $325,547 for all health and sanitation activities during the year. The bulk, $213,694, was for construction of sewers and disposal plants.

The year's bill of the state government for charities and corrections amounted to $6,268,033 for current operating expenses, and $597,828 for new buildings, lands, and improvements; for health and sanitation, $948,403 for current operating expenses, and $36,092 for new buildings, lands, and improvements.

AMPLE SLEEPING QUARTERS

The doctor met Mrs. Brown on the street. "How is your husband now?" he asked. "Did you give him the sleeping powder?"

"Yes," she replied. "You told me to give him the amount I could get on a quarter, but as I didn't have any, I used twenty-five pennies, and he's been asleep now for four days."

—*Rocky Mountain Medical Journal.*

Deaths

James J. Moorhead, M.D., of Terre Haute, aged seventy-eight, died at his home on March sixteenth. Dr. Moorhead graduated from the Rush Medical College, University of Chicago, in 1895. Following his graduation he devoted much of his time to research work at the University of Chicago, and he located at Terre Haute in 1921. He retired from active practice several years ago. Dr. Moorhead was a member of the Vigo County Medical Society, was a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

George L. Perry, M.D., of Portland, died on April fifth at a local hospital. He was seventy-two years of age. Dr. Perry graduated from the Medical College of Indiana, Indianapolis, in 1897.

* * *

Caroline Reed, M.D., of Veedersburg, aged seventy-four, died suddenly on April fourth. Dr. Reed was a graduate of the Northwestern University Woman's Medical School, Chicago, in 1899.

* * *

Joseph Lemen Reeve, M.D., one of the pioneer physicians of Edwardsport, died on March thirteenth. He was eighty-three years of age. Dr. Reeve graduated from the University of Louisville School of Medicine in 1881 and had been in practice for nearly sixty years. He was a member of the Knox County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

John Sherman Sprague, M.D., a member of the medical staff of the United States Veterans' Administration Hospital at Indianapolis, died on March twenty-seventh. He was sixty-three years of age. Dr. Sprague was a graduate of the Medical College of Indiana in 1905. He specialized in tuberculosis. He was a member of the St. Joseph County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

John Moore Taylor, M.D., of Indianapolis, was found dead on April twelfth. He was fifty years of age. Dr. Taylor graduated from the Indiana University School of Medicine in 1921. He was especially interested in urology. He was a member of the Indianapolis (Marion County) Medical Society, was a member of the Indiana Medical Association, and was a Fellow of the American Medical Association.

* * *

Flavian P. AuBuchon, M.D., of Forest, aged sixty-seven, died on March seventeenth following a four-day illness. Dr. AuBuchon graduated from the Barnes Medical College, St. Louis, in 1898.

William E. Catterson, M.D., of Noblesville, died on April seventh. He was seventy-eight years of age. Dr. Catterson graduated from the Physio-Medical College of Indiana, Indianapolis, in 1906. He was especially interested in ophthalmology. Dr. Catterson was an honorary member of the Hamilton County Medical Society, was a member of the Indiana State Medical Association, and was a member of the American Medical Association.

* * *

James Clarence Cowan, M.D., prominent physician of New Haven, died on March sixteenth at the age of sixty-three. Dr. Cowan was a graduate of the Chicago College of Medicine and Surgery in 1905. He had been engaged in practice at New Haven and Fort Wayne for more than thirty-six years. He was a member of the Fort Wayne (Allen County) Medical Society, of the Indiana State Medical Association, and of the American Medical Association.

* * *

George Calder Dunlevy, M.D., of Evansville, aged seventy-three, died on March nineteenth at his home following an illness of several months' duration. Dr. Dunlevy graduated from the New York Homeopathic Medical College and Flower Hospital, New York, in 1890. He was especially interested in surgery. He located in Evansville in 1892. Dr. Dunlevy was a member of the Vanderburgh County Medical Society, was a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

J. Louis Fichman, M.D., of Indianapolis, died in an Indianapolis hospital on March twenty-ninth. He was thirty-five years of age. Dr. Fichman was a graduate of the Indiana University School of Medicine in 1929. He was a member of the Indianapolis (Marion County) Medical Society and the Indiana State Medical Association.

* * *

Charles Beatty Kenney, M.D., of Highland, aged thirty-nine, died at his home on March fifteenth. Dr. Kenney graduated from the University of Georgia School of Medicine, Augusta, in 1924.

* * *

Fernande H. Luck, M.D., of Indianapolis, former physician at the Indiana Woman's Prison and the Indiana Girls' School, died at her home on March twenty-fifth after a two-year illness. She was fifty years of age. Dr. Luck graduated from the Indiana University School of Medicine in 1912.

* * *

Israel S. Millstone, M.D., of Gary, aged eighty-one, died in a local hospital on March twelfth following a long illness. Dr. Millstone graduated from the Cleveland-Pulte Medical College in 1900.

News Notes

The American Association for the Study of Goiter will hold its meeting in the Hotel Statler, Boston, Massachusetts, May 12, 13, and 14, 1941.

* * *

Dr. John C. Sharrer, of Francesville, celebrated his eighty-third birthday April first.

* * *

Drs. Kuhn, Smith and Kuhn of Hammond have opened new offices in a residence which they have remodeled at 112 Rimbach street. "Open house" was held in the new offices March sixteenth.

* * *

Dr. Max Bahr, superintendent of Central State Hospital, has been appointed to serve on the merit board for the Indianapolis police and fire departments to fill the unexpired term of Dr. Murray DeArmond, who has been called for military service.

* * *

Dr. Nellie Green, of Fowler, celebrated her ninety-eighth birthday in February. Dr. Green retired several years ago.

* * *

Dr. L. M. Neher has left North Manchester to go to Jerome, Idaho, where he will practice.

* * *

Dr. Naomi Dalton, school physician for the Central Normal College at Danville, has moved to Bloomington where she will be in charge of the office of Dr. William C. Reed, who has been called for Army service.

* * *

Dr. S. S. Frazier, of Angola, was honored by the Lions club of Angola in March, celebrating his fiftieth anniversary of entrance into the practice of medicine.

* * *

Dr. Robert Trout, of Oaktown, celebrated his eighty-fifth birthday, March eighteenth.

* * *

Dr. Charles Titus, of Wilkinson, observed his forty-seventh anniversary in the practice of medicine in March.

* * *

Dr. Walter Bruetsch, clinical director of the Central State Hospital in Indianapolis, has been awarded a prize for outstanding achievement by the American League Against Epilepsy.

* * *

Dr. Leslie Wilson, of Fort Wayne, has taken over the practice of the late Dr. James C. Cowan, of New Haven.

* * *

The Indiana Academy of Ophthalmology and Otolaryngology met at the French Lick Springs Hotel, April second, for its twenty-fifth annual meeting.

The seventeenth annual meeting of the American Heart Association will be held May 30-31, 1941, at the Hotel Statler, Cleveland, Ohio.

* * *

The American College of Surgeons held sectional meetings in Minneapolis and Pittsburgh in March, and at both meetings Dr. Carl H. McCaskey of Indianapolis appeared on the programs.

* * *

At the meeting of the Indiana Association of the History of Medicine held in March, new officers were elected. They are: Dr. M. H. Mothersill, Indianapolis, president, and Mrs. Mabel Walker, librarian of the Indiana University Dental School, Indianapolis, secretary-treasurer.

* * *

Dr. Lewis G. Jacobs, formerly connected with the radiological departments of the medical schools of Leland Stanford, Minnesota, and Wisconsin universities, now is associated with Dr. L. A. Smith of Indianapolis in the practice of roentgenology and radium therapy.

* * *

Dr. Howard B. Mettel, Indianapolis, has been named acting director of the division of services for crippled children in the welfare department. Dr. Mettel is chief of the bureau of maternal and child health of the Indiana State Board of Health and will serve the welfare department during the absence of Dr. Oliver W. Greer, who has been called for Army service.

* * *

The California State Personnel Board wants qualified applicants for student intern and senior intern—open to men and women. The one year California residence requirement has been waived for these examinations which will be conducted to obtain eligibles to fill current vacancies in state institutions. Applications may be filed at any time during 1941 and will be rated as received by the State Personnel Board.

* * *

GOLF TOURNAMENT AT A.M.A. MEETING

The American Medical Golfing Association will hold its twenty-seventh annual tournament at Cleveland Country Club and Pepper Pike Club in Cleveland, Ohio, on Monday, June 2, 1941. The Cleveland Golf Committee is under the chairmanship of Dr. John B. Morgan, 1822 Republic Bldg., Cleveland. All male Fellows of the American Medical Association are eligible and are cordially invited to become members of the AMGA. Write to the executive secretary, Bill Burns, 2020 Olds Tower, Lansing, Michigan, for application blank.

BOWLING TOURNAMENT AT A.M.A. MEETING

Plans are being made to have a bowling tournament during the next meeting of the American Medical Association. It is hoped that teams can be formed representing various states. Physicians who are interested in bowling should contact Dr. Lewis W. Bremerman, 1709 West Eighth Street, Los Angeles, Calif.

The Indiana Academy of Ophthalmology and Otolaryngology held its twenty-fifth annual meeting April 2, 1941, at the French Lick Springs Hotel, French Lick. Speakers on the program included Dr. Fred McK. Ruby, Union City; Dr. Noel S. McBride, Terre Haute; Dr. O. G. Brubaker, North Manchester; Dr. B. J. Larkin, Indianapolis; Dr. J. Kent Leasure, Indianapolis; Dr. W. R. Hickman, Logansport; Dr. B. N. Lingeman, Crawfordsville; Dr. B. E. Ellis, Indianapolis, and Dr. Carl J. Rudolph, South Bend. Guest speaker of the afternoon and following dinner in the evening was Dr. Max M. Peet of Ann Arbor, Michigan.

Beginning with its January-February issue, *The Journal of Infectious Diseases* will be published by the University of Chicago Press under the editorship of a newly appointed Board of Editors, with William H. Taliaferro, Chairman of the Department of Bacteriology and Parasitology, the University of Chicago, editor-in-chief. The Journal is published bi-monthly. Dr. Ludvig Hektoen, editor of the Journal since its founding in 1904, has retired from active participation. Dr. Francis B. Gordon, Assistant Professor of Bacteriology, University of Chicago, who has been on the editorial board for some time, now becomes Managing Editor.

Four new members have been added to the Industrial Advisory Committee of the National Society for the Prevention of Blindness, it was announced recently. The new members are:

Dr. Alice Hamilton, Consultant to the United States Department of Labor, Washington, D. C.

Dr. Morton G. Lloyd, Chief, Section on Safety Codes, National Bureau of Standards, Washington, D. C.

Mr. Harold L. Miner, Safety Director, DuPont de Nemours & Co., Wilmington, Del.

Dr. John J. Wittmer, of New York City, representing the American Association of Industrial Physicians and Surgeons.

In spite of the joint efforts of labor, industry, voluntary and official agencies, a tremendous toll of needless eye damage still continues to be inflicted on working men and women throughout the United States, according to Dr. Leonard Greenburg, Executive Director of the Division of Industrial Hygiene, New York State Department of Labor, who is chairman of the Society's Industrial Advisory Committee. The committee now includes fifteen safety experts.

"Eye accidents in industry have cost far greater than the direct monetary cost," says Dr. Greenburg. "The accumulated social cost of such accidents is tremendous, and the cost to the individual worker, both in physical pain and mental suffering is beyond evaluation."

Applications must be filed with the United States Civil Service Commission, Washington, D. C., for positions as senior medical officer ($4,600 a year), medical officer ($3,800 a year), and associate medical officer ($3,200 a year). They will be rated as received and certification made as the needs of the service require. When sufficient eligibles are obtained, the receipt of applications will be closed, in which case due notice will be given.

A subsequent application will not be accepted from any applicant within three months of the date of receipt of his preceding application under this announcement.

When an applicant who has been rated eligible in this examination for any of the grades listed above files a subsequent application, but is found ineligible for a higher grade than that for which he has been rated, his application will be canceled and no additional rating will be assigned him in the grade for which he is already eligible.

ALLEN COUNTY MEDICAL SOCIETY ENDORSES MATERNITY NURSING SERVICE

The Maternity Nursing Service which was established by the Bureau of Maternal and Child Health of the Indiana State Board of Health in 1936 for Fort Wayne and Allen County, was endorsed by the Allen County (Fort Wayne) Medical Society at its meeting held on March 25, 1941. This nursing service was established as a demonstration in Allen County through the full cooperation of the Fort Wayne Medical Society and the Visiting Nurse League of Fort Wayne, Indiana. This was the first of this type of service set up in the State, and one of the first in the United States. Since its establishment, other county medical societies and official and non-official health agencies have availed themselves of these services in the following counties: Spencer, Perry, Pike, Ohio-Switzerland, and Monroe.

All of these demonstrations have shown that they are factors in lowering the maternal death rate in the areas in which they are established. These maternity services have been extremely popular with physicians who are doing home deliveries and who are practicing obstetrics in the more rural areas of the State where hospital facilities and expert nursing services are not available.

SULFATHIAZOLE-WINTHROP

In a statement sent to all hospitals, wholesale druggists, and retail pharmacists, the Winthrop Chemical Company states that tablets of Sulfathiazole-Winthrop, "M.P." control series, were accidentally contaminated with phenobarbital. An attempt has been made to recover the tablets. In the interest of public safety, prompt cooperation is urged in the search for these tablets, for they are dangerous. The Winthrop Company asks that you examine the mark on every package of their sulfathiazole tablets and return them immediately for exchange if the package bears the letters "M.P." If tablets have been dispensed from bottles so marked, endeavor to recover all such tablets which have not been consumed. The address of the Winthrop Chemical Company, Inc., is 170 Varick Street, New York, N. Y.

INDIANA UNIVERSITY NEWS NOTES

Ear, nose and throat specialists from fourteen widely separated states attended the two-weeks postgraduate course in otorhinolaryngology held April 14-26 at the Indiana University School of Medicine.

Dr. C. H. McCaskey, chairman of the department of otolaryngology at the Indiana University Medical School, and Dr. E. N. Kime, professor of anatomy at the medical schools, were in charge of the course. Members of the medical society in Indianapolis and of the state and local otolaryngological societies, were among the guests at the opening dinner of the course. Speakers at the dinner were: Dean M. Lierle, University of Iowa; Dr. J. O. Ritchey, president of the Indianapolis Medical Society; Dr. Noel McBride, Terre Haute, president of the Indiana Academy of Ophthalmology and Otolaryngology; Dr. A. M. Mitchell, Terre Haute, president of the Indiana State Medical Association; Dr. Jacob Badertscher, assistant dean of the medical school in Bloomington; Dr. W. D. Gatch, dean of the medical school in Indianapolis and Bloomington, and Dr. John D. Garrett, president of the Indianapolis Ophthalmology and Otolaryngology Society.

Registrants in the course are physicians who have been recognized as ear, nose and throat specialists by their county or state medical societies.

The annual banquet of the Phi Beta Pi, national medical fraternity at Indiana University, was held April ninth, with Richard Harding, of Indianapolis, acting as toastmaster. The program was in charge of Dr. Ruben A. Solomon of Indianapolis. "Choosing Medicine as a Career" was discussed by Dr. Chester A. Stayton of Indianapolis. Dr. William V. Woods, also of Indianapolis, spoke on "Choosing a Medical Fraternity," and Dr. Lewis C. Robbins of Bloomington discussed "Non-Medical Activities."

Society Reports

INDIANA STATE MEDICAL ASSOCIATION
THE EXECUTIVE COMMITTEE

March 16, 1941.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M. D.; A. M. Mitchell, M.D.; M. A. Austin, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Ruling Upon Payment of Traveling Expenses

In order to obtain uniformity and to be in line with the procedure followed by the American Medical Association, Dr. McCaskey, seconded by Dr. Mitchell, made the following motion:

> "Hereafter traveling expenses (railroad, Pullman, etc., or 3 cents a mile for auto) plus a maximum of $5.00 a day for actual meals and hotel expenses shall be allowed to committee members and officers traveling at the expense of the association. This does not apply to out-of-state guests who appear upon the program for the annual session or the secretaries' conference. Also, this $5.00 per diem does not apply to those who are out of their offices for less than one day in attending committee meetings or on business on behalf of the state medical association."

The statements of receipts and expenditures for January and February for the association committees and THE JOURNAL were approved.

Membership Report

Number of members March 15, 1941, 2,659 (95 honorary members; 75 in service).

Number of members March 31, 1940, 2,909.

Number of members December 31, 1940, 3,192 (90 honorary members).

Treasurer's Office

The treasurer was authorized to purchase $6,000 in treasury certificates upon the motion of Dr. Mitchell, seconded by Dr. McCaskey.

1941 Annual Session at Indianapolis

The Committee on Convention Arrangements has had a preliminary meeting and Dr. C. F. Thompson, chairman of this committee, will be asked to attend one of the future meetings of the Executive Committee to make a report upon the local situation.

Commercial exhibit announcement mailed in February. Thirty-eight spaces sold; eleven to be sold.

Legislative, Legal and Social Security Matters

National

Report received from J. W. Holloway, Jr., Acting Director of the Bureau of Legal Medicine and Legislation of the American Medical Association, in regard to the national situation. Copies of this report were sent to the members of the Executive Committee.

Local

Final report on legislature to be printed in April issue of The Journal.

Suggestion in regard to lien law which was received from Dr. A. F. Knoefel in February was sent to members of the Executive and Legislative Committees. The Legislative Committee felt that nothing could be done at the last session of the legislature, but that this matter might be studied for future action. The Executive Committee suggested that this be turned over to Albert Stump, attorney for the association, who is to report back to the next meeting in regard to it.

Letter from Dr. H. C. Ragsdale in regard to barbiturates brought to the attention of the committee. When informed that the barbiturate situation had been studied by the Indiana Inter-Professional Health Council, Dr. Ragsdale wrote suggesting that "The Journal let the physicians of the state know that such an organization exists." The committee instructed the secretary to inform Dr. Ragsdale in regard to this organization.

Organization Matters

Inter-Professional Health Council. The committee appointed the following physicians as members of the Committee on Indiana Inter-Professional Health Council for 1941:

Chairman, F. S. Crockett, M.D., Lafayette; L. H. Allen, M.D., Bedford.

Ex-officio members: A. M. Mitchell, M.D., Terre Haute, president; F. T. Romberger, M.D., Lafayette, chairman of the Council; N. M. Beatty, M.D., Indianapolis, and J. William Wright, M.D., Indianapolis, co-chairmen of the Legislative Committee.

Physician on Industrial Board. In accordance with the action taken by the Council at its midwinter meeting, the Executive Committee suggests that the chairmen of the Legislative Committee be informed of the action taken that a physician should be appointed on the Industrial Board.

State Board of Health

Under the Reorganization Act passed at the last session of the legislature the members of the State Board of Health, including the secretary, will be appointed by a commission composed of the governor, lieutenant governor and treasurer. Henry Schricker, Charles Dawson and James M. Givens will make up the appointing group.

The Advisory Committee to the Bureau of Maternal and Child Health of the Indiana State Board of Health met at the same time as the Executive Committee and joined with the Executive Committee for luncheon. Dr. E. O. Asher, the chairman, stated that the Advisory Committee will have a report ready for consideration of the Executive Committee at its next meeting.

Group Hospitalization and Medical Service Plans

No action was taken in the state legislature on the group hospitalization bill which was introduced but not pressed by the Indiana Hospital Association.

Medical Economics

National Youth Administration. Dr. John W. Ferree, state health commissioner, and Dr. J. Neill Garber, state health consultant for the National Youth Administration, met with the Executive Committee and presented the medical examination program of the National Youth Administration which is being put into effect throughout the country. At the conclusion of discussion upon this subject a motion, proposed by Dr. Romberger and rewritten by Dr. Austin, was passed in the following form:

> The Executive Committee recommends that the county medical societies investigate and cooperate with the National Youth Administration state consultant in securing proper physical examinations for the National Youth Administration groups.

The Medical Advisory Board of the National Youth Administration for Indiana is composed of Dr. Garber, Dr. Ferree, and Dr. George M. Brother. The Executive Committee is to act, at least temporarily, as a liaison committee to the Medical Advisory Board of the National Youth Administration for Indiana. The consulting group and members of the Executive Committee are to meet, draw up a set of principles, based upon those adopted by the Council of the Ohio State Medical Association, to carry out the medical examination program of the National Youth Administration. (The Ohio state principles in general are along the lines adopted by the Indiana State Medical Association in dealing with the Farm Security set-up several years ago.) These principles are to be submitted to the councilors in writing rather than wait for the next meeting of the Council, due to the emergency situation and, if approved by the Council, copies of the principles will then be sent to the county medical societies.

Medical Relief

Amendment to University Hospitals Commitment Bill failed to pass in the legislature and the Executive Committee urged that further study be given to this subject in order that proper legislation, which will be satisfactory to all elements, be prepared and presented to the next session of the legislature.

Letter received from R. W. Waterson, executive secretary of the Lake County Medical Society, stating that as yet the University Hospitals had not submitted the data in regard to the patients committed from Lake County, as requested by the Lake County group. Members of the committee are to talk again with Dr. Van Nuys and Dr. Gatch in regard to this matter.

Report made to committee that the Welfare Act was amended at the last session of the legislature which it is felt will make funds available from the county welfare board to pay for medical services received by recipients of old age pensions. Heretofore these services were paid out of township

trustee funds and the physicians had difficulty in obtaining any compensation for these services.

Monthly reports of WPA cases for January and February brought to the attention of the committee.

State Board of Medical Registration and Examination and Cult Study Committee

The Medical Registration and Examination Board budget passed the legislature as submitted.

Editorial on "The Chiropractic Theory of Law" on page 414 of the *A.M.A. Journal* of February 1 speaks of the work being done by the Indianapolis Better Business Bureau to eradicate quackery.

Socialized Medicine.

Merom Situation. Report made upon the meeting held at Merom, Indiana, in regard to obtaining a physician for that community by Dr. McCaskey, who was present at that meeting. Letters from Dr. F. S. Crockett, member of the Legislative Committee of the American Medical Association, Dr. C. B. Barker, executive secretary of the Connecticut State Medical Society, and Chase Kimball, of Waterbury, Connecticut, who complained about the rulings of the State Medical Board in not qualifying a certain emigre physician to practice at Merom, brought to the attention of the committee.

Complaint of C.I.O. against physicians at Auburn, Indiana, read to the committee. This complaint was forwarded to the secretary of the DeKalb County Medical Society, and to the councilor of the Twelfth District, and nothing further has been heard from it.

Military Preparedness

Medical program proposed by the United States Public Health Service as outlined in a paper delivered by Dr. Warren F. Draper, acting surgeon general, at the recent conference of mayors at St. Louis discussed by the Executive Committee. Dr. Draper has been invited to be on the program of the Indiana State Medical Association next September.

Letter from Colonel H. D. Corbusier, president of the Association of Military Surgeons of the United States, addressed to Dr. Mitchell, brought to the attention of the committee. The committee suggested that a letter be written to Colonel Corbusier, telling him that the Indiana State Medical Association is working through the Americal Medical Association and that a mobilization day committee has been functioning in Indiana for more than two years.

Physical Therapy Questionnaire

The committee approved the request of Edwin L. Libbert, M.D., Lawrenceburg, chairman of the Committee on Physical Therapy of the Indiana State Medical Association, to send out a questionnaire on physical therapy to the members of the profession of Indiana. The committee approved an additional budget of $150 for this work, making this committee's maximum budget for the year $300.

The Journal

Letter from Dr. Shanklin in regard to cooperation from the printers. Conference has been held with printers and they promise us every effort will be made to get THE JOURNAL out and not have it three or four days late as it has been for the past several months.

Request for exchange with the *Memphis Medical Journal* and the *Southern Medical Journal* left up to Dr. Shanklin and the Editorial Board.

Bill for $6.00 from Charles Smith of Lake County for photographs for the cover of the industrial health issue of THE JOURNAL approved.

The Heid Health Shoe Store advertisement is acceptable if there is no objection on the part of the A.M.A.

Request for exchange with the *South African Journal of Medical Sciences* left up to the editor and the Editorial Board.

Malpractice

Malpractice Survey. Albert Stump is to return this material and a check is to be made with each medical defense company in regard to that part of the survey that has to do with that company and then it is to be printed in THE JOURNAL.

THE BUREAU OF PUBLICITY

March 31, 1941.

Present: H. G. Hamer, M.D., chairman; F. W. Taylor, M.D., and T. A. Hendricks, executive secretary.

After calling the meeting to order the chairman stated that he appreciated the responsibility placed upon the Bureau and said that in his opinion the Bureau should follow the same active policy established by the late Dr. William N. Wishard, who served for nineteen years as chairman of the Bureau.

Minutes of the meeting of the Bureau of April 24, 1940, the last official meeting, were approved for signature by the committee.

A general statement in regard to the Bureau's duties was made covering the following points:

(1) Releases to newspapers.
(2) Speakers before medical societies.
(3) General field of action—
  a. Indiana Plan.
  b. Historical work.
  c. Pamphlets on contagious diseases.
  d. Advisory committee to Woman's Auxiliary.
  e. Opinions upon relationships between public and the profession.

The following releases were approved for publication:

Saturday, April 5—"Industrial Health."
Wednesday, April 9—"Survey on Medical Care of Civilians During the Emergency."
Saturday, April 19—"Indiana Medical Profession and Defense."

The Bureau suggested that a release be prepared upon National Hospital Day, May 12, in accordance with the custom of past years.

Reports were received upon the following medical meetings:

Feb. 19—Parke-Vermillion County Medical Society, Clinton. "Upper Respiratory Infections." (12 present.)

March 11—Fayette-Franklin County Medical Society, Connersville.

March 19—Parke-Vermillion County Medical Society, Clinton. "The National Medical Situation," and "The State Legislature." (13 present.)

The committee discussed the following matters of general interest to the profession:

(1) National Youth Administration movement.

(2) The American Medical Association survey of minimum needs for the civilian population in time of emergency.

(3) The League of Women Voters' study in regard to socialized medicine and sickness insurance. In this connection the Bureau of Publicity discussed the part that the Woman's Auxiliary to the Indiana State Medical Association, many of whose members belong to the League, should take in this matter. A member of the Auxiliary, who is very active in the League, is to be invited to attend the next meeting of the Bureau of Publicity.

There being no further business, the meeting was adjourned.

LOCAL SOCIETY REPORTS

Clinton County Medical Society members met at the Clinton County Hospital, Frankfort, on April first. Dr. Frank Peyton, of Lafayette, spoke on "Obstetrics and Gynecology." Twelve members and one guest were in attendance.

* * *

Dearborn-Ohio County Medical Society members held a meeting at the Chat'N'Nibble Tea Room, at Lawrenceburg, on February twenty-seventh. Dr. K. L. Stoll, of Cincinnati, gave a paper entitled "Eye Conditions Found in Routine Refraction." Motion picture slides were also shown. Twelve members attended this meeting.

At a meeting held at the Right Restaurant, Aurora, on March twenty-seventh, Dr. O. H. Stewart, of Aurora, spoke on "Hypertension." A round table discussion followed Dr. Stewart's talk. Ten members were present.

* * *

Delaware-Blackford County Medical Society members met at Hotel Roberts, Muncie, on March eighteenth. Drs. Ramon Henderson and G. S. Young, of Muncie, spoke on "Treatment of the Acute Exanthemata." Thirty-six members and guests were present.

* * *

Elkhart County Medical Society members held a dinner meeting at Hotel Elkhart on March twentieth. Dr. Howard A. Bosler, of New Paris, gave a talk on his experiences while in Nigeria, Africa, as a medical missionary. This was a social meeting at which the wives of members were entertained. Seventy-two members and guests were in attendance.

The annual business meeting of the Elkhart County Medical Society was held in the Empire Room of Hotel Elkhart on April third. Principal speakers during the afternoon session were Dr. Albert H. Montgomery, clinical professor of surgery of the University of Illinois, who spoke on "Differential Diagnosis of Cardiac Lesions"; Dr. Warren H. Cole, also professor of surgery at the University of Illinois, who discussed "New Methods of Diagnosing Gastro-intestinal Lesions"; and Dr. Willis D. Gatch, dean of the Indiana University School of Medicine, who spoke on "Newer Concepts of Gall Bladder Surgery." Dr. Walter C. Alvarez, internist at the Mayo Clinic, addressed the group in the evening on "Puzzling Types of Abdominal Pain."

* * *

Fayette-Franklin County Medical Society members met at the McFarlan Hotel on March eleventh. Dr. Brandt F. Steele, of Indianapolis, gave a paper on "Administration of Sulfanilamide, Sulfapyridine, and Sulfathiazole."

* * *

Fort Wayne (Allen County) Medical Society members held a meeting at the Indiana Hotel on March eighteenth. Dr. Philip Lewin, associate professor of orthopedics at Northwestern University, Chicago, spoke on "Low Back Pain and Sciatica." Eighty-two members attended this meeting.

At a meeting held on March twenty-fifth, motion pictures on "Intravenous Anesthesia" were shown. Thirty-two members were present.

* * *

Fountain-Warren County Medical Society members met at Mudlavia Hotel, Kramer, on March sixth. Dr. Harlan A. English, of Danville, Illinois, spoke on "Urology for the General Practitioner." Twenty-three members attended this meeting.

On April third, a dinner meeting was held at the Methodist Church at Kingman. Dr. Norman Beatty, of Indianapolis, was the principal speaker, his subject being "Congenital Syphilis."

* * *

Gibson County Medical Society members met at the Emerson Hotel, Princeton, on March tenth. Dr. George S. Bond, of Indianapolis, discussed "Hypertension, Clinical Symptoms and Treatment." Twenty-three members were present.

* * *

Grant County Medical Society members held a meeting on March twenty-seventh at the Nurses' Residence of the Marion General Hospital. Drs. Merrill Davis and G. C. Eckhart, of Marion, presented a symposium on "Fractures."

* * *

Greene County Medical Society members met at the Freemont County Hospital, Linton, on March thirteenth. Dr. P. E. McCown, of Indianapolis, dis-

cussed "Etiology and Treatment of Renal and Ureteral Calculi." Fifteen members attended this meeting.

* * *

Hamilton County Medical Society members held a meeting at the Community House on March eleventh. Dr. George J. Garceau, of Indianapolis, was the guest speaker. Ten members were present.

* * *

Hancock County Medical Society members held a meeting on March thirteenth. Dr. J. O. Richey, of Indianapolis, spoke on "Dyspnea." Fourteen members attended the meeting.

* * *

Indianapolis (Marion County) Medical Society members met at the Indiana State Board of Health Building on March eighteenth. The program was sponsored by the Dairy Council of Indianapolis, and Dr. Wilson G. Smillie, professor at Cornell University, spoke on "Education in Nutrition, Whose Responsibility?"

At a meeting held on April first at the Indianapolis Athletic Club, the program consisted of case reports: "Fracture of Neck of Femur," by Dr. Lacey L. Shuler; "Carcinoma of the Lung," by Dr. William F. Molt; "Dissecting Aneurysm," by Dr. J. A. McDonald; "Pagets Disease of Vulva," by Dr. Jane Ketcham and Dr. Carl Culbertson; and "Cyst of Mediastinum," by Dr. W. D. Gatch.

On April eighth, Drs. C. L. Rudesill and C. G. Weigand spoke on "The Therapeutic Use of Pyridoxine (Vitamin B_6) in Parkinsonism." Dr. J. M. Leffel spoke on "Uses and Abuses of Miller Abbott Tube," and Drs. George Bowman and Francis Sheehan spoke on "Continuous Massive Arsenotherapy of Early Syphilis."

* * *

Jasper-Newton County Medical Society members held a meeting at the Brook Hotel, Brook, Indiana, on March twenty-seventh. Dr. M. J. Eaton, Lafayette, discussed "Causes of Hematuria and Pyuria." Twelve members were present.

* * *

LaPorte County Medical Society members held a meeting at the Spaulding Hotel, Michigan City, on March twentieth. Dr. Clarence A. Neymann, professor of neuro-psychiatry at Northwestern University Medical School, spoke on "The Treatment of Neuroses by Psychoanalysis." Twenty-five members were in attendance.

* * *

Marshall County Medical Society members met at the Hi-Way Inn on April second.

* * *

Miami County Medical Society members held a meeting at the Miami County Hospital on March twenty-eighth with seven members in attendance. A motion picture film was shown on "Abdominal Hysterectomy."

* * *

Muncie Academy of Medicine members met at Hotel Roberts on April eighth. Dr. Byrl R. Kirklin, former Muncie physician and now chief of the radiological department of the Mayo Clinic, was the principal speaker. His subject was "Lesions of the Small Bowel." Approximately one hundred members and guests attended the meeting.

* * *

Parke-Vermillion County Medical Society members met at the Vermillion County Hospital, Clinton, on March nineteenth. Thomas A. Hendricks, executive secretary of the Indiana State Medical Association, spoke on "Medical Legislation in 1941 General Assembly." Thirteen members attended this meeting.

* * *

Randolph County Medical Society members held a meeting on March tenth at the Randolph County Hospital at Winchester. Mr. Howard Henderson, of the American Hospital Supply Corporation and Baxter Laboratories, spoke on "Some Practical Aspects of Fluid Administration, Blood Transfusions, Blood Banks, Plasma Fusion, and Plasma Banks." Thirteen members were present.

* * *

Tippecanoe County Medical Society members met on April eighth at the Lincoln Lodge, Lafayette, with forty-two members in attendance. Dr. Willard O. Thompson, of Chicago, was the guest speaker. His subject was "Endocrine Therapy."

* * *

Tri-County Medical Society members held a dinner meeting at the Seymour County Club on March twenty-sixth in honor of the association members leaving for service in the United States Medical Corps. The doctors honored were: Dr. W. Durbin Day, of Seymour; Dr. Basil M. Merrell, of Brownstown; Dr. Jack Shields, of Medora; Dr. William Sigmund, of Columbus; Dr. Richard K. Schmidt, of Columbus; Dr. G. H. Haggard, of Hope; and Dr. R. B. Johnson and Dr. Joseph S. Skobba, of Butlerville. Forty members and guests attended this meeting.

* * *

Wabash County Medical Society members held a meeting at the Wabash County Hospital on April second. Dr. A. F. Weyerbacher, of Indianapolis, spoke on "Syphilis and Romance," and Dr. George W. Bowman, of Indianapolis, spoke on the "Drip Treatment." Seventeen members were in attendance.

* * *

TWELFTH DISTRICT SOCIETY

The annual meeting of the Twelfth Medical District was held in Fort Wayne on April 1, 1941, at the Chamber of Commerce.

At the afternoon session, Dr. Robert Masters of Indianapolis was the first speaker. His topic was "News From the Medical Step-children." The points brought out by the discussant were very practical ones in regard to the handling of eye cases by the general practitioner and they were very well received by the attendants.

Drs. J. P. Nesselrod and J. M. Garner of Evanston, Illinois, followed on the program. Their demonstration of normal and pathological conditions in the lower bowel and rectum were brought out forcefully and clearly by their exceptionally fine colored motion pictures. Following the demonstration Dr. Nesselrod discussed with the aid of charts, the etiological factors, clinical diagnosis, and treatment of external and internal hemorrhoids, fissures and ischio-rectal abscess.

Following the dinner, State President Mitchell and Executive Secretary Hendricks reported on the legislative measures in the State, as well as those in regard to the nation, which are pertinent to the medical profession. President-Elect Austin (editor of the *Asbestos Archives*) was also present and favored us with a few remarks.

The main speaker of the evening was Dr. W. F. Petersen, Professor of Pathology at the University of Illinois, who talked and showed charts and portraits illustrating his subject, "Humans, Weather, and History." His remarks certainly opened new channels of thought to all of us.

The district secretary feels quite enthusiastic in advising others to have the same program for their local district meeting. The speakers as mentioned certainly are well versed in their subjects and are not just a bit different—they are totally different, and hold their audiences such as few speakers can. "Never a dull moment," can truly be said if you have this same group on your program. In all, the meeting was a marked success not only in regard to registration and papers read, but by the good fellowship which was shown, and the presence of a goodly number of wives added much to the occasion.

Dr. Ralph Elston, Fort Wayne, was elected president; Dr. B. F. Pence of Columbia City, vice-president; Dr. S. R. Mercer, Fort Wayne, was re-elected secretary-treasurer, and Dr. H. L. Murdock continues in office as councilor.

S. R. Mercer, M.D., *Secretary*

WHITLEY COUNTY MEDICAL SOCIETY

The following letter was approved unanimously by members of the Whitley County Medical Society and sent to their senators and congressmen. It was likewise voted that a copy be forwarded to The Journal with the recommendation that it be published.

"Dear Congressman Gillie:

"We realize that you as well as we are passing through an unusual period in our country's welfare, and that many things that are unjust can easily escape your attention at a time like this.

"We wish to call your attention to a condition which we, the members of the Whitley County Medical Society, feel is an injustice to the medical profession of our county, state, and nation—namely, that the physicians serve on the draft boards without financial remuneration. At the very time we are giving this free service, our association is being prosecuted by the government while labor organizations are allowed to strike and destroy property without any such prosecution.

"Each member of the medical profession, as a rule, represents a one-individual business and, therefore, when we are away from our offices, our business stops.

"We are keenly aware of our responsibility to our country, also we are equally aware of our responsibilities to our patients and our own families.

"Mr. Gillie, we ask you to consider our position, and if you feel that an injustice has been done to our profession, will you sponsor or use your influence to correct the same?

"Sincerely submitted,

"WHITLEY COUNTY MEDICAL SOCIETY,

"Park Huffman, M.D., *Secretary*."

M-DAY COMMITTEE

The M-Day Committee of the State Medical Society met Sunday, January 19, 1941, at the Indianapolis Athletic Club, and was called to order by Dr. C. R. Bird, chairman.

Old Business:

1940 transactions of the Committee were reviewed and discussed. The personnel of local boards and the question of their being paid was discussed. Dr. Bird's letter of December 11, 1940, subject "Selective Service Examination Bulletin," was adopted by the surgeon-general's office for general distribution.

New Business:

There are now 62 county M-Day committees operating in the State. It was decided that the county M-Day Committees should set up liaison with local Red Cross units, local disaster relief committees, and the Home Guard. It was announced that in the second bunch of selectees, 17% was rejected in Indiana.

The following statements have been issued from the Surgeon General's office:

> Non-reserve doctors when drafted will not be offered commissions for at least some months after their induction.
>
> Reserve officers who have resigned, when drafted will be given no consideration and no commission.

The matter of M-Day questionnaires was discussed.

A communication as to the organization of hospital personnel was received from the office of the Surgeon General as follows:

"Subject: Assistance of American Medical Association in Classification and Procurement of Physicians.

To: All Corps Area Surgeons.

1. A meeting of the Medical Preparedness Committee of the American Medical Association was held in Chicago at the Headquarters of the American Medical Association on Saturday, November 23. At this meeting Brig. General Albert G. Love represented the office of the Surgeon General, Lieut. Colonel Charles B. Spruit, M.C., the Headquarters of the Selective Service, Lieut. Colonel George C. Dunham, the Council of National Defense, and Dr. James A. Crabtree, the U. S. Public Health Service. All of the members of the Medical Preparedness Committee were present with the exception of Dr. Fred W. Rankin (Fifth Corps Area) of Lexington, Ky., and Dr. Samuel E. Thompson (Eighth Corps Area) of Kerrville, Texas.

2. The American Medical Association and the members of the Preparedness Committee are giving generously of their time and their funds for this work. They have expressed a desire to be of the maximum assistance. General Love states that the members of the Committee reported that each one had been in contact with the Corps Area Surgeon of his area, and that their offer to assist in the classification and procurement of Reserve officers had been received cordially by the Corps Area surgeons. In our opinion, such assistance is essential to the orderly procurement of properly qualified Reserve officers without seriously disturbing civilian medical service, including teaching facilities.

3. In addition, the Committee adopted unanimously a resolution to offer their assistance to the Surgeon General and the Corps Area surgeons at this time in classifying and procuring such additional properly qualified physicians as will be required, that cannot be procured from the Reserve Corps, to act as chiefs of services of the several station and general hospitals that are to be opened during the next few months. Since time is important, it is suggested that with the assistance of the regional representative of the Preparedness Committee you make at once a careful survey of the Medical Corps Reserve Officers in your area, with a view to selecting suitable chiefs of Services for hospitals where their services are required. If, as a result of this survey, you find a deficit or surplus of properly qualified Reserve officers for such positions, irrespective of their present work, report should be made immediately to this office, giving in each instance the name and qualifications of the Reserve officer available or the positions for the physicians required. A duplicate list should be furnished to Lieut. Colonel Charles G. Hutter, the representative of this office, Headquarters American Medical Association, 535 North Dearborn Street, Chicago, Illinois. An additional copy should be furnished to the regional representative of the Preparedness Committee. This office will furnish the names of such qualified Reserve officers, who are in excess of the local demands, to the Corps Area requiring their services.

4. After the necessary adjustments, it is suggested that you request the local representative of the Preparedness Committee to submit the names of such additional physicians as are required who are qualified for the position to be filled. The names of such physicians should be furnished to this office, and a duplicate copy be forwarded to Colonel Hutter. The details regarding the commissioning of such eminently qualified physicians will be furnished to the Corps Area Commander by the Adjutant General in the near future. It is probable that rank can be granted commensurate with the position to be filled.

5. It is suggested that this work be started at once so that adequate provisions may be made to staff the contemplated hospitals. This plan has been submitted to the Secretary of War for consideration and has been approved. It will be published to the Corps Area Commanders by the Adjutant General at a very early date."

James C. Magee,
Major General, U. S. Army,
The Surgeon General.

Members present:

C. R. Bird, M.D., Chairman,
C. C. Crampton, M.D., Delphi,
M. L. Curtner, M.D., Vincennes,
H. J. Norton, M.D., Columbus, *Secretary.*

WOMAN'S AUXILIARY

President—Mrs. C. L. Bock, Muncie
President-elect—Mrs. E. O. Nay, Terre Haute
Corresponding Secretary—Mrs. T. R. Owens, Muncie
Treasurer—Mrs. M. W. Hillman, South Bend

The *Allen* County Medical Auxiliary had a very interesting and profitable meeting on March eighteenth at the Methodist Hospital in Fort Wayne. Dr. Doster Buckner spoke on "Danger in Laity Discussion of Scientific Information." Dr. Jessie Calvin, vice-commander in the Woman's Field Army for Cancer Control, talked on "Cancer Control," and Mrs. A. N. Ferguson discussed "The Case of the United States vs. The American Medical Association et al." The Allen County group has arranged to distribute toys and other play materials in the pediatric wards of the various Fort Wayne hospitals.

An election of officers was held at the meeting of the *Cass* County Medical Auxiliary on February twenty-eighth. New officers include: President, Mrs. C. L. Williams; first vice-president, Mrs. Paul H. Wilson; second vice-president, Mrs. Earl W. Bailey; secretary, Mrs. C. L. Rice; treasurer, Mrs. E. B. Jewel; publicity chairman, Mrs. C. L. Viney; public relations chairman, Mrs. Thomas L. Keefe; hygeia chairman, Mrs. W. W. Holmes; and program chairman, Mrs. L. J. Hillis. At the meeting on March twenty-first at the Cass County Hospital, the eighteen auxiliary members present were taken on a tour of the hospital and were given a demonstration of the iron lung. Later, they heard their new president, Mrs. Williams, discuss "Our Objectives for the Coming Year." Mrs. Wilson spoke on

"Legislation," Mrs. Keefe on "Public Relations," and Mrs. Holmes on "Hygeia."

Seventeen members attended the dinner meeting of the *Delaware-Blackford* Auxiliary, held at Hotel Roberts in Muncie on March eighteenth. The group has recently given the physicians a gift of forty dollars for the purchase of a dictionary to be placed in the physicians' library in the Ball Memorial Hospital.

The members from Nappanee planned the program for the meeting on March sixth of the *Elkhart* County Auxiliary. Mrs. Howard A. Bosler, whose husband has been a physician in Nigeria, West Africa, described her experiences as a doctor's wife there, and the twenty-nine members present enjoyed it thoroughly. On March twentieth, the physicians of the Elkhart County Medical Association entertained their wives at dinner at Hotel Elkhart. More than one hundred attended. Following the dinner, Dr. Bosler gave a fascinating account of his experiences in Nigeria.

The *Floyd* County Auxiliary held a meeting on October eleventh, at the Tavern Hotel in New Albany, at which they made plans for their part in the state convention entertainment at French Lick. Mrs. George Dillinger, of French Lick, was the speaker for the meeting, which sixteen members attended. On November eighth, the auxiliary entertained Floyd County dentists' wives at a luncheon meeting. There were eighteen members and six guests present. Dr. Kenneth Brown spoke on "Political Medicine and You."

On March twentieth, the *LaPorte* County Auxiliary held a dinner meeting at the Spaulding Hotel in Michigan City. Following the dinner, there was a discussion of socialized medicine, led by a member of the Michigan City League of Women Voters.

CONVENTION AT CLEVELAND

This is the *Last Call* for reservations for the Nineteenth Annual Convention of the Woman's Auxiliary to the American Medical Association which will be held at Hotel Carter, in Cleveland, June 2-6. All Cleveland extends a hearty welcome to you!

In an article by Mrs. Fred C. Oldenburg, appearing in the spring number of the *Bulletin*, she makes it seem that any of us who do not attend this meeting in Cleveland will regret it exceedingly. A cordial invitation is extended to the wives of all members of the American Medical Association, whether they are auxiliary members or not. All general sessions and all social functions, such as luncheons, teas and dinners, will be open to every member's wife. Cleveland abounds in places of interest to visit, according to Mrs. Oldenberg, who is chairman of the Committee on Arrangements for the national meeting. There are universities, special schools, art museums, historical museums, beautiful parks and boulevards, and numerous opportunities for recreational activities and sports.

Another article of interest in the latest copy of the *Bulletin* is that entitled "A Message From Founder and First President of the Woman's Auxiliary to the American Medical Association" by Mrs. Samuel Clark Red. She concluded her message in this way: "If any advice would be acceptable to you at this time from one who has had experience in auxiliary work for twenty-two years, it would be to you as individuals. Love that doctor of yours more and more each day. Try to understand his problems but do not presume on your privileges. Accept with dignity and an understanding heart the position you occupy in your community as 'his wife.' Put your auxiliary duties and responsibilities next to those of family and religion. Not that social contacts and pleasures are not important, they are for both of you, but 'put first things first' and your position in your community is secure as a cultured helpful doctor's wife who is doing her duty to her neighbor and her God."

REPORT OF THE ANTI-TUBERCULOSIS COMMITTEE of the INDIANA STATE MEDICAL ASSOCIATION

The Anti-Tuberculosis Committee of the Indiana State Medical Association met with members of the county committees and other interested physicians at breakfast at the time of the French Lick meeting. This time was set because of many luncheon meetings which would interfere with a good attendance. Thirty attended the breakfast and some came in later. A round table discussion followed in which many of the doctors took part. Various tuberculosis problems were discussed and everybody seemed to think it was a successful meeting. The consensus of opinion was that such a breakfast meeting should be repeated at the next annual session.

The Anti-Tuberculosis Committee had a luncheon meeting in Indianapolis on Sunday, March 9, 1941. The committee decided that the general practitioners do not use the tuberculin test in routine examinations because tuberculin solutions have to be kept fresh and are not easily available in most communities. The Patch test will keep almost indefinitely and it is quite satisfactory in making the test, particularly in children. It was suggested that the county tuberculosis associations supply the Patch test to the doctors without cost as a demonstration of its value. This matter was later taken up at a meeting of the executive committee of the Indiana Tuberculosis Association. The members of this committee endorsed the plan and decided to urge all county tuberculosis associations to supply, without charge, doctors in their community with the Patch test.

Reactors to the tuberculin test should have benefit of x-ray examinations and most county tuberculosis associations will defray the expense of such

TUBERCULIN TESTING IN INDIANA FOR SCHOOL YEAR 1939-1940

(39 COUNTIES)

NUMBER OF REACTORS

Group Tested	*No. Tested*	*1st Dose P.P.D.*	*2nd Dose P.P.D.*	*O.T.*	*Patch*	*Total No. Reactors*	*Percent of Reactors*	*No. X-ray Films*	*No. Adult Type Disease*
Pre School	1,268	25	....	....	60	85	6.7%	59	....
Grade School	9,156	279	34	425	172	910	9.9%	613	2
High School	25,249	956	194	2,699	463	4,312	17.1%	2,980	35
Colleges	8,731	274	538	652	167	1,631	18.7%	1,369	40
Adults and Teachers	1,041	55	28	74	206	363	34.9%	570	13
Total	45,445	1,589	794	3,850	1,068	7,301	16.1%	5,591	90

x-ray examinations in indigent cases. In other communities the township trustee will assume that expense or have it done at one of the state sanatoria.

The Anti-Tuberculosis Committee endorsed the bill recently passed by the state legislature requiring school teachers, janitors and school bus drivers to have a physical examination and x-ray every three years, such examination to be performed by a doctor of their choice. This work will start in 1942.

The school tuberculin testing programs are going forward in many counties of the state and the county tuberculosis committees should take a leading part in supervising such work. A letter was written to the president of each county medical society requesting the personnel of the 1941 tuberculosis committee. To date forty-four replies have been received. It is urged that all of these committees be appointed in the near future.

Above is a report on tuberculin testing in the schools of the state for 1940.

J. H. STYGALL, M.D.,
Chairman
J. V. PACE, M.D.
ROBERT STAFF, M.D.
P. D. CRIMM, M.D.
G. H. HAGGARD, M.D.
S. R. COMBS, M.D.
JAMES MCBRIDE, M.D.

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, February, 1941

Diseases	*Feb. 1941*	*Jan. 1941*	*Dec. 1940*	*Feb. 1940*	*Feb. 1939*
Tuberculosis	51	84	86	93	127
Chickenpox	538	422	459	274	500
Measles	1,107	277	99	26	44
Scarlet Fever	661	488	431	849	1,005
Smallpox	3	8	5	10	449
Typhoid Fever	7	8	10	15	11
Whooping Cough	85	81	59	149	101
Diphtheria	49	51	43	66	106
Influenza	412	1,547	1,422	1,115	1,490
Pneumonia	139	146	75	142	111
Mumps	209	132	132	495	264
Poliomeyelitis	1	5	11	1	3
Meningitis	3	3	1	1	2
Tularemia	3	9	46	6	7
Encephalitis	0	1	1	3	0
Undulant Fever	3	1	6	3	0

BOOKS

BOOKS RECEIVED

MACLEOD'S PHYSIOLOGY IN MODERN MEDICINE. By Philip Bard, Professor of Physiology, Johns Hopkins University School of Medicine; with the collaboration of Henry C. Bazett, Professor of Physiology, University of Pennsylvania; George R. Cowgill, Associate Professor of Physiological Chemistry, Yale University School of Medicine; Howard J. Curtis, Instructor of Physiology, Johns Hopkins University School of Medicine; Harry Eagle, Passed Assistant Surgeon, United States Public Health Service and Lecturer in Medicine, Johns Hopkins University School of Medicine; Chalmers L. Gemmill, Associate in Physiology, Johns Hopkins University School of Medicine; Magnus I. Gregerson, Professor of Physiology, College of Physicians and Surgeons, Columbia University; Roy G. Hoskins, Director of Research, Memorial Foundation for Neuro-endocrine Research, and Research Associate in Physiology, Harvard Medical School; J. M. D. Olmstead, Professor of Physiology, University of California; and Carl F. Schmidt, Professor of Pharmacology, University of Pennsylvania. Ninth edition, 1256 pages with 387 illustrations. Fabrikoid. Price $10.00. C. V. Mosby Company, St. Louis, 1941.

* * * *

MERCHANTS IN MEDICINE. By Emanuel M. Josephson, M.D. 223 pages. Price $1.50. Chedney Press, New York, 1941.

* * * *

THE MASK OF SANITY—An Attempt to Reinterpret the So-called Psychopathic Personality. By Hervey Cleckley, B.S., B.A. (Oxon.), M.D. Professor of Neuropsychiatry, University of Georgia School of Medicine, Augusta, Georgia. 298 pages. Cloth. Price $3.00. C. V. Mosby Company, St. Louis, 1941.

* * * *

FIRST AID IN EMERGENCIES. By Eldridge L. Eliason, A.B., M.D., Sc.D., F.A.C.S., Professor of Surgery, University of Pennsylvania School of Medicine; and Professor of Surgery, University of Pennsylvania Graduate School of Medicine. Tenth Edition completely revised and reset. 260 pages with 126 illustrations. Fabrikoid binding. Price $1.75. J. B. Lippincott Company, Philadelphia, Pa., 1941.

THE 1940 YEAR BOOK OF PATHOLOGY AND IMMUNOLOGY. PATHOLOGY edited by Howard T. Karsner, M.D., Professor of Pathology, Director of the Institute of Pathology, Western Reserve University, Cleveland. IMMUNOLOGY edited by Sandford B. Hooker, A.M., M.D., Professor of Immunology, Boston University School of Medicine; Member, Evans Memorial for Clinical Research and Preventive Medicine; Immunologist, Massachusetts Memorial Hospitals. 688 pages with 115 illustrations. Fabrikoid. Price $3.00. The Year Book Publishers. Chicago, 1940.

This is one of a series of publications intended to supply concise and digested information as to progress, research and practices in the specialties of medicine. It will be very useful to the practicing pathologist, but to the general practitioner it will probably not serve for routine use. It can be recommended for quick and ready information upon any topic that may be included within the field.

The section upon pathology covers comprehensively many foreign and domestic publications upon matters of general interest in pathology as well as of special items of the regional systems of the body. There is a section upon that ever fresh subject, namely, tumors; it is very interesting to be told that neoplasms are found very widely in the lower animals, for example, the frog. The section upon immunology covers in detail common febrile and contagious diseases. The less familiar but important virus and Rickettsial diseases are given ample considerations. Blood grouping, allergy, anaphylaxis are handled fully. A practitioner interested in comparisons of various modes of immunization will find considerable data, as may apply to his practice with children.

Both parts of the book supply material upon recently innovated technics that occasionally may be needed.

In several sharp comments, it is good to note Dr. Karsner's criticisms upon discerning universally an "allergic" basis in every phenomenon of disease; after all, it is being done.

H. B.

SPECIALTIES IN MEDICAL PRACTICE. By Edgar Van Nuys Allen, M.D., Editor, chief of a Section in the Division of Medicine, The Mayo Clinic, and associate professor of medicine, The Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota. Foreword by Donald C. Balfour, M.D., consultant in Surgery, The Mayo Clinic. Two volumes. Loose-leaf. Thirteen specialists have contributed chapters. The volumes consist of about 1,000 pages and 300 illustrations. Imitation leather binding. Price $25.00. Thomas Nelson & Sons, New York and Edinburgh, 1940.

This being, after all, a system of medicine, it is hard to see justification for adding another to the numerous ones already in existence. The reason is given that this publication supplies a perpetual "post-graduate course" in the specialties and serves to act as the intermediary between general practitioner and the specialist. Dr. Balfour, of the Mayo Clinic, provides a foreword for these volumes.

There are twelve sections covering the major specialties. They are all well written, crisp and concise. One gets the impression that there has been an uniformly consistent effort to eliminate all verbosity and irrelevancy and padding, so as to have only that which is immediately and directly useful. Each section may be read for general information and thus constitutes a kind of introductory acquaintance to a specialty, or it may be read for immediate reference to some point. There is very little comment to make otherwise upon the organization and substance of the chapters.

The reviewer feels that the writer of the chapter upon psychiatry would have done better to have written more extensively and primarily upon the neuroses and left the more severe mental disorders for briefer discussion at the end. After all, the general practitioner is more in need of understanding the emotional difficulties, per-

(Continued on page xxii)

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"This has been an instructive experience and goes to show that past friendly relations with a patient are no guarantee of immunity against a lawsuit when a little easy money appears possible."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(56,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $33.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $66.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $99.00 per year

39 years under the same management

$2,000,000.00 INVESTED ASSETS
$10,000,000.00 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

BOOKS

(Continued from page xxi)

sonality troubles, and maladaptations of the majority of his clients who will probably never need to be institutionalized or subjected to prolonged and major psychiatric procedures.

Provision is made for renewal of material from time to time so that the system always can be kept up to date.

H. B.

CLINICAL PELLAGRA. By Seale Harris, M.D., Professor Emeritus of Medicine, University of Alabama, Birmingham, Alabama, assisted by Seale Harris, Jr., M.D., formerly Assistant Professor Medicine, Vanderbilt University, Birmingham, Alabama. 494 pages with 66 illustrations. Fabrikoid. Price $7.00. The C. V. Mosby Company, St. Louis, 1941.

This is a very readable and useful book. It can be recommended without hesitation to any practitioner for a lucid and detailed account of pellagra. It appears to the reviewer as if the senior author had enjoyed very much writing this book and made almost a hobby of it.

The book is complete. Beginning with a historical review of the disease, it is interesting to note that here is a condition that was world wide and well known for at least three centuries. Going on to theories of causation, one notes that speculations upon food deficiency have been known as far back as any knowledge of it at all. The statistical data is given in detail. The chapters upon investigations, clinical and other, pertaining to etiology, disclose the very prominent part taken by American investigators; it is with pride that one may point to the contributions of Elvehjem and his associates with black tongue in dogs, Goldberger in the United States Public Health Service, and of Spies in clinical application of the use of nicotinic acid. Very wisely, it is pointed out that with the well nigh miraculous curative powers of nicotinic acid known and acknowledged, nevertheless the complete story of cause and cure is by no means finished. Sections deal comprehensively with the pathology of pellagra, point out the importance of liver damage as a salient feature and bring up interesting discussion upon the inter-relationship between pellagra, sprue and pernicious anemia. The remainder of the book deals exhaustively with the clinical pictures, diagnosis and treatment of pellagra. It is here that the medical man may appreciate the complexity and diversity of the pictures of the disease and learn that the treatment consists of carefully thought out regimens and not the dispensing of a handful of nicotinic acid tablets.

The disease frequently goes undiagnosed because of its varied symptomatology, its frequent manifestation with paucity of symptoms and signs and the fact that it is encountered in well to do families, where food scarcity or deficiency is not a factor. It is very interesting to note that suicidal, homicidal and severe depressive states are frequently found in the mental aspects of the disease and their relationship to the condition easily passed by. As one reads the book, one cannot help but feel that this disease is quite general and reaches into almost every phase of medicine.

Finally, one cannot close without paying tribute to the charming style of writing with its frequent indulgence in reminiscence.

H. B.

The AMA Needs a New Charter. The American Medical Association and its local society in Washington, D. C., have been convicted by a federal jury of violating the antitrust law. At the same time the jury acquitted all of the individual defendants, who included the principal executive employes of the association.

This verdict had a parallel some months ago in the federal court at South Bend, where the General Motors corporation was convicted of violating the antitrust laws in financing the sale of its cars, but all of the officers of the corporation were acquitted. This, as it turned out, was most fortunate for Mr. Roosevelt. It saved him the embarrassment of plucking one of the defendants, Mr. Knudsen, out of jail when he needed him to head OPM.

The jurors seem to have been in no doubt that a crime was committed, yet when they were asked to say who committed it their answer was, "Nobody." Perhaps the legal metaphysicians can straighten us out. Queries might well be addressed to the prosecutor of the case, Mr. Thurman Arnold, who has written that antitrust prosecutions are a sham anyway, being designed to propitiate the public conscience for allowing acts that our moral sense tells us are wrong but which our practical judgment says are necessary.

The charge against the doctors at Washington was that they engaged in a conspiracy in restraint of trade against the Group Health association, an organization that undertook to furnish government employes with medical care in return for a flat monthly fee. The AMA asserts that arrangements of this type tend to lower the standards of medical care, and in consequence its members, at the instigation of the association's leaders, refused to have any professional relations with the physicians hired by the Group Health organization.

The antitrust conviction may impress upon the members of the AMA that when they organized they took out the wrong kind of a charter. They should have applied to William Green or John L. Lewis. So equipped, they would not have been reduced to refusing to practice in the same hospitals with a physician who signed up with Group Health. Dr. Morris Fishbein could just have gone around some evening and broken the wrong guy's fingers with a blackjack, an operation that does a surgeon no more good than it does a musician, and Mr. Justice Frankfurter would have told Thurman Arnold not to get himself all wrought up over a passing moment of animal exuberance.

A good broad AFL or CIO charter would solve a lot of the medical profession's economic problems. Its members would not have to worry about overproduction of doctors. They could just close their membership rolls and have some of their members, sitting on the state and local examining boards, prosecute the newcomers for practicing without a license.

Draft boards wouldn't be asking physicians to give their services free for examination of the draftees. All the chest thumping in charity wards would be done at the union scale and any non-union medico who tried to cut in on the business would have to pay a $1,000 initiation fee. Ladies expecting offspring would have to be careful that the labor pains did not start after 4 p. m. on a Friday; otherwise Papa would have to pay double time for a week-end delivery.

(Continued on page xxiv)

For the local Treatment of Acute Anterior **Urethritis**

(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE* Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae.[1] An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

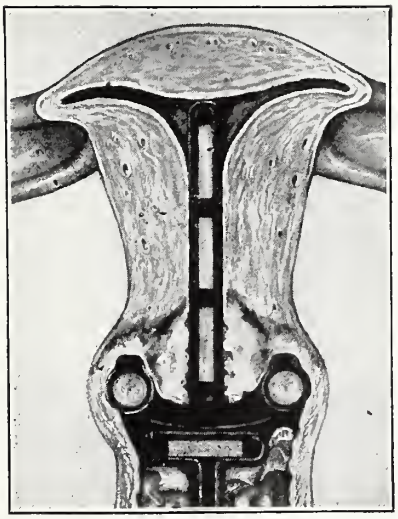
1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., **23**, 201 (March), 1939.

A complete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

IMPROVE YOUR RESULTS IN CANCER OF THE CERVIX



CONSISTENTLY high percentages of 5-year cures in Carcinoma of the Cervix are reported by institutions employing the French technique illustrated here. Ametal rubber applicators encase the heavy primary screens and provide ideal secondary filtration to protect the vaginal mucosa. Radium or Radon applicators for the treatment of Carcinoma of the Cervix and provided with Ametal filtration are available exclusively through us. Inquire and order by mail, or preferably by telegraph or telephone reversing charges. Deliveries are made to your office or hospital for use at the hour you may specify.

THE RADIUM EMANATION CORPORATION

GRAYBAR BUILDING Tel. MOhawk 4-6455 NEW YORK, N. Y.

(Continued from page xxii)

The medical union might be able to take on a number of profitable activities that AMA members now deny themselves, such as performing abortions or, for a suitable fee, slipping a dose from the black bottle to millionaires whose heirs were growing impatient. While such activities might arouse public protest, the union does could be sure that President Green would not bother them. That would be interfering with their autonomy.—Editorial, Chicago *Tribune*, April 7, 1941.

ABSTRACT

ANNUAL REPORT SHOWS PROGRESS IN CAMPAIGN TO PROTECT EYES

New York City, April 11—Special vigilance to protect eyesight is needed at the present time because of greater accident hazards resulting from the expansion and speed-up of industrial production for national defense, according to the Annual Report of the National Society for the Prevention of Blindness. In a preface, Mason H. Bigelow, president of the Society, says:

"In these troubled times, the conservation of vision has become more important than ever before, and there is added significance in the increasingly heard command, 'Eyes Right!' Good eyesight is not only an essential requirement for young men in our rapidly growing armed forces, but also a necessity for the older men and the large number of women who are playing their parts in the industrial sector of our national defense program. Protection of eyesight is now vital to national service as well as an important factor in economics and an expression of humanitarianism. It is with this vital cause that the National Society for the Prevention of Blindness is concerned.

"For more than three decades the Society has directed the campaign to reduce blindness from preventable causes. It has sought to keep abreast of scientific advances in this field, interpreting them to the public in laymen's language and explaining how such knowledge may be applied practically. Need for increased activities has met with the loyal support of more than 20,000 members and donors throughout the country during the past year; and the Society has been fortunate in having the whole-hearted co-operation of doctors, nurses, educators, lawyers, government officials, social workers, industrialists, illuminating and safety engineers, newspaper and magazine editors, broadcasting program directors, any many others."

Advances have been made on many fronts in the war on blindness, the report points out. At the present time, the Society is engaged in public education concerning glaucoma, a condition which confronts thousands of men and women as they grow older. "Through early recognition of glaucoma," the report states, "much blindness from this cause might be averted. We must impress upon the general public the importance of periodic eye examinations by a competent physician who, through training, is able to recognize the subtlest eye symptoms."

The Society is also participating in the fight against syphilis and gonorrhea. "More than 25,000 men, women, and children in the United States—approximately one-sixth of the entire blind population—lost their sight as the result of these diseases," the report adds. "It is an established fact that if all cases of syphilis among expectant mothers are discovered and followed up with early treatment, we may look forward to a marked decrease in blindness and defective vision. It is encouraging, therefore, that 20 states now have laws requiring premarital Wassermann tests, and 18 states have laws requiring Wassermann tests for all expectant mothers."

The report calls attention to the fact that testing the vision of school children and of pre-school children has become a fairly common practice throughout the United States. These tests are usually given by school nurses, school physicians or teachers, and are conducted merely to screen out those children whose vision defects are sufficiently serious to be referred to a physician for further examination.

For those school children who suffer from seriously defective vision, 218 communities maintain special "sight-saving classes" with a total enrollment of nearly 9,000 elementary and high school pupils. It is estimated that there are 41,000 additional American boys and girls who need these special educational facilities.

More than a quarter of a million pamphlets were distributed by the Society during the year, and exhibit material was displayed at 186 national, state and local conventions and meetings. A motion picture film, "Preventing Blindness and Saving Sight," was seen by approximately 180,000 persons at nearly 1,500 showings.

The Society's income in 1940 was $142,062 and its expenditures amounted to $159,808, necessitating the use of $17,746 from the Reserve Fund.

The Mary E. Pogue School

DOCTORS: You may continue to supervise the treatment and care of children you place in our school. Catalogue on request.

40 Geneva Road *Telephone*
WHEATON, ILLINOIS *WHEATON 66*

ZEMMER
PRODUCTS ARE DEPENDABLE
THE ZEMMER COMPANY

Prescribe or dispense ZEMMER pharmaceuticals . . . laboratory controlled . . . guaranteed reliable potency. Write for general price list.
IN 5-41
OAKLAND STATION, PITTSBURGH, PA.

ABSTRACTS

DEATHS FROM APPENDICITIS

Seventy-five per cent of the 20,000 annual deaths from appendicitis could be avoided if patients were seen early by their physician and the proper treatment instituted. According to R. G. Robinson, M.D., Detroit, in a paper published in *The Journal of the Michigan State Medical Society* for April, 1941, our school systems should include in their curricula courses which would provide sufficient general medical information to protect the citizens of tomorrow against tragedies such as ruptured appendix.

Appendicitis requires surgical treatment. A surgeon should determine whenever the diagnosis is uncertain:

(1) Is watchful expectancy reasonably safe?

(2) Do the findings justify operation?

These two points may be determined only by repeated physical examinations and laboratory studies and by intelligent consultation.

He feels that these approaches to the problem of appendicitis should materially reduce the death rate from this condition.

INFANT MORTALITY

Deaths of infants under one year of age, exclusive of stillbirths, totaled 108,846, according to a final Census report covering 1939.

This was in comparison with 116,702 similar deaths the year previous and represented a reduction in the ratio per 1,000 live births of from 51 to 48.

That the present death total for infants—equal to the total population of cities like Canton, Ohio, and Tampa, Fla.—is susceptible to further drastic decreases is indicated by the achievements of certain states. If, for instance, the entire United States achieved the same low infant death rate that Oregon has achieved, there would have been approximately 28,000 fewer infant deaths in 1939. If, on the other hand, the high rate of New Mexico had prevailed nationally, it would have meant an increase of more than 138,000 infant deaths.

The 14 states which achieved an infant death rate of less than 40 percent 1,000 live births were, in order, Oregon, 35.5; Minnesota, 35.8; Connecticut, 35.9; Nebraska, 36.5; Washington, 36.8; Massachusetts, 37.0; Illinois, 38.0; New Jersey, 38.7; Iowa, 38.8; New York, 39.3; Rhode Island, 39.4; Kansas, 39.4; Indiana, 39.5; Utah, 39.5.

Eighteen states, including the District of Columbia, had infant death rates of between 40 and 50.

The 17 remaining states had infant death rates of from 50 up to 109 as follows: New Mexico, 109.0; Arizona, 94.3; Texas, 67.0; South Carolina, 66.2; Louisiana, 63.0; Virginia, 60.9; Alabama, 59.9; North Carolina, 59.2; Georgia, 58.4; Florida, 56.4; Mississippi, 56.2; Colorado, 54.8; West Virginia, 54.7; Tennessee, 53.9; Kentucky, 52.6; Maine, 52.4; Maryland, 50.3.

Although 48 was the average for the entire United States, the white average was 44.3, the Negro 73.2, and other races 97.2.

Compared with today's rate of 48, the rate in 1934 was 60; in 1929, 68; in 1924, 71, and in 1918, 101.

Annual Convention

Indiana State Medical Association

Indianapolis, September 23, 24, 25, 1941

Effective, Convenient and Economical

THE effectiveness of Mercurochrome has been demonstrated by twenty years' extensive clinical use.

For the convenience of physicians Mercurochrome is supplied in four forms—Aqueous Solution for the treatment of wounds, Surgical Solution for preoperative skin disinfection, Tablets and Powder from which solutions of any desired concentration may readily be prepared.

Mercurochrome, H.W.&D.

(dibrom-oxymercuri-fluorescein-sodium)

is economical because solutions may be dispensed at low cost. Stock solutions keep indefinitely.

Mercurochrome is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

Literature furnished on request

HYNSON, WESTCOTT & DUNNING, INC.

BALTIMORE, MARYLAND

When Diagnosing

Consider Our Shoes for Posture, Balance, Support or Correction

Heid assures a most careful shoe fitting as to doctors' prescriptions for type of shoe, last and correction to be attached for problem feet ones beyond the regular shoe store service.

Stock and Made-to-Measure Shoes

Orthopedic and standard shoes built flexible, resilient or rigid (not the same type for everybody) are featured and fitted by Irvin Heidenreich. Also persons sent in for good, comfortable shoes in regular or odd sizes are fitted at reasonable prices (seldom exceeding ten dollars).

HEID'S HEALTH SHOE

1546 N. ILLINOIS ST. (Sq. East of Meth. Hosp.)

LABORATORY APPARATUS

Coors Porcelain Pyrex Glassware
R. & B. Calibrated Ware
Chemical Thermometers
Hydrometers Sphygmomanometers

J. T. Baker & Co.'s C.P. Chemicals
Stains and Reagents
Standard Solutions

• BIOLOGICALS •

Serums Bacterins Media
Antitoxins Vaccines Pollens

We are completely equipped, and solicit your inquiry for these lines as well as for Pharmaceuticals, Chemicals and Supplies, Surgical Instruments and Dressings.

The RUPP & BOWMAN CO.
319 SUPERIOR ST., TOLEDO, OHIO

Annual Convention

Indiana State Medical Association

HOTEL ACCOMMODATIONS

A recent survey of the facilities offered by the Claypool Hotel has assured us of adequate and convenient space for all scientific meetings. This makes it possible to house the entire convention within the space provided by the Claypool Hotel.

Because of the limited guest accommodations, it will be necessary for some of the out-state attendants to obtain accommodations in adjacent hotels in the immediate downtown district in Indianapolis. For this reason it is urged that those planning to attend the convention in Indianapolis in September make their reservations at the earliest possible moment so that they may choose according to their desire. A detailed list of the various hotel accommodations will be published at an early date.

COMMITTEE ON HOTEL ACCOMMODATIONS
Ernest Rupel, M. D., Chairman

Indianapolis, September 23, 24, 25, 1941

THERE IS A DIFFERENCE
IN Rx SERVICE

You can depend on Blue Ribbon Rx Service

THE WHITE-HAINES OPTICAL CO.
INDIANAPOLIS and SOUTH BEND

RADIUM

RENTED
for the individual case at lowest rates. Instruments loaned.

LEASED
in any quantity of 50 milligrams or more, on a yearly basis. Continuous possession. No investment.

SOLD
in any quantity in latest platinum containers.
RADON in all-gold Implants at $2.50 per millicurie.

For details, address
RADIUM AND RADON CORP.
Marshall Field Annex • Randolph 8855
CHICAGO

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 JUNE, 1941 NUMBER 6

OBSTETRICS—OLD AND NEW*

HUGH A. COWING, M.D.
MUNCIE

Obstetrics—the oldest and most fascinating branch of medicine.

Obstetrics—compared with general scientific progress, the most neglected, the most ignored, the most abused branch of medicine.

It is sufficient for the purpose of this paper to contrast obstetrics of thirty, forty, and fifty years ago with modern obstetrics. I present the records of the past and present and ask if and where we have erred? Where have we improved? What were the dangers then? What today? Where have we failed?

It is entirely consistent and appropriate to bring this subject before a health officers' conference. We cannot know too much about obstetrics. The national, state and local health services have done much to improve maternal and child welfare and to elevate obstetrical practice. As guardians of the public health, we are vitally interested; we hold ourselves responsible, in full measure, for those conditions that relate to maternal and child welfare.

Thirty-two years ago (June 19, 1908) here at French Lick, I presented, before the Indiana State Medical Association, a paper entitled "Six Hundred Cases of Labor in Private Practice."[1] (These did not include consultations.) All of these labors occurred in homes in or near Muncie, Indiana. During almost that entire period—eighteen years—I served as county health officer. These are accurate bedside records, not presented because they represent ideal management and treatment, but in the interests of truth and the science and art of medicine. In that paper I commented: "The physician who approaches the lying-in chamber should thoroughly understand his responsibilities, but he should not be depressed by them. Whatever the trial, whatever the complication, he should maintain his professional poise. He should be undisturbed by the importunities of the patient, or relatives, or attendants. With all he should be firm, but conciliatory. Quick to anticipate danger yet he should not be unduly apprehensive. He should be patient and resourceful, and never hurry, unless haste means life and safety. During pregnancy by advice and treatment he may greatly contribute to the success of the final issue. Our people are not yet sufficiently trained in the importance of securing professional advice early in pregnancy. The one maternal death in these six hundred cases was due to eclampsia. I learned of the patient's condition only at the beginning of labor."

The obstetrics of thirty, forty, and fifty years ago required a special type of training and adaptability; a resourcefulness to meet the exacting requirements of a rugged and sometimes primitive society. The successful accoucheur was an individualist, meeting critical conditions often single-handed, while using the meager resources available. In this connection I reported a few cases from my records.

Later I added two hundred labors, which I attended, to this report and presented the eight hundred cases in a paper to our local medical society with the following comments: "These reports and observations are based upon careful bedside records of all cases. With but few exceptions (seven in hospitals) these deliveries occurred in the homes, which graded from the hovel or cabin to the modern, well equipped residence. During much of this period of thirty years as county health officer, I was frequently in attendance upon contagion. Change of clothing and asepsis was rigidly practiced. The assistance of the graduate nurse was the exception. The so-called practical nurse was sometimes present, but usually neighbor women or relatives were the only help. Too often the help was negligible. In the stress of emergency, when the husband was drafted, his aid met reasonable

* Presented before the Conference of Indiana Health Officers at French Lick, October 29, 1940.

[1] Cowing, Hugh A.: Six Hundred Cases of Labor in Private Practice. *J. Ind. State Med. Asso.*, I, 355-360 (Sept.) 1908.

FROM BEDSIDE RECORDS, 800 CASES OF LABOR IN PRIVATE PRACTICE, 1890 TO 1920

Cases in Series of Twenties

No. of Cases	*Primipara*	*Multipara*	*Male*	*Female*	*Twins*	*Stillborn*	*Illegitimate*	*Breech Present.*	*Foot Present.*	*Face Present.*	*Occipito-Post.*	*Brow Present.*	*Hand Present.*	*Arm Present.*	*Prolapse of Cord*	*Version*	*Forceps*	*Placenta Praevia*	*Adherent Placenta*	*Post-Partum Hemorrhage*	*Eclampsia*	*Spina Bifida*	*Hydrocephalus*	*Cesarean*	*Death of Mother*
1- 20	5	15	9	11		1			1								2								
21- 40	6	14	10	11	1				2							1	2								
41- 60	7	13	13	7				1																	
61- 80	8	12	9	11		1		1	1				1				3			1					
81-100	6	14	8	12													2				1				
101-120	6	14	11	9		1															1				
121-140	7	13	12	8				1				1					1				1				
141-160	11	9	7	13			1	1									3				1				
161-180	6	14	9	11		1	1			1									1						
181-200	7	13	10	10													2			1					
201-220	4	16	10	10													3								
221-240	8	11	9	11													1		1						
241-260	8	12	10	10		1											2					1			
261-280	12	8	10	10			1	1									2								
281-300	12	8	12	8		1	1	1									1		1						
301-320	6	14	10	12	2	1								2		2	1								
321-340	14	6	7	13					1								1			1					
341-360	9	11	12	8							1						1								
361-380	7	13	14	6													1								
381-400	9	11	14	6		1											2				1				
401-420	8	12	10	10					1						1		2				1				
421-440	7	13	19	2	1												1								
441-460	6	14	10	10		1				1									1						
461-480	10	10	10	10				1											3						
481-500	9	11	8	12													1		2						
501-520	8	12	12	8		2															1				1
521-540	9	11	8	13	1	1		2									1								
541-560	8	12	10	10		1										1	2	1							
561-580	8	12	8	12													3				1				
581-600	3	17	9	11																					
601-620	6	14	7	13								1					1								
621-640	4	16	10	11	1	1		1	1								1		1	1			1		1
641-660	3	17	10	10					1								4			1					
661-680	2	18	10	10		1					1						2								
681-700	4	16	12	8													3		1	1					
701-720	8	12	10	10													1								
721-740	3	17	9	11															1	2					
741-760	7	13	13	7				1				1					3			1					
761-780	9	11	12	8		1											1		1	1					
781-800	8	12	11	9							1						2				1			1	
Totals	289	511	414	392	6	16	4	11	8	2	3	3	1	2	1	4	58	1	13	10	9	1	1	1	2

In Homes, 793 labors. In Hospital, 7 labors—1916, 2; 1918, 2; 1919, 1; 1920, 2. Maternal Mortality, ¼ of 1%.
Total Fetal Mortality including Stillborn, 2%.

expectation. The confidence and cooperation of the patient and family and assistants were always sought and deemed important. Preparedness, confidence of ability without egotism or arrogance, patience, self-sacrifice, loyalty to patient, optimism, courage, gentleness and practical skill, with abundant resourcefulness, were all needed, sooner or later, by the obstetrician who sought success in the era here recorded."

To this report of eight hundred cases was added this summary:

SUMMARY

The answer to the obstetrical problem must come through those who undertake obstetrics by:

1. Keeping careful, accurate records of cases.
2. Constant study of its science and art.
3. Devotion to duty with liberal sacrifice of time.
4. Altruistic ideals and moral stamina.
5. Reporting experience whether favorable or failures.
6. Bizarre and spectacular methods that disregard safety and sanity are reprehensible and bring danger to mother and child, and criticism and possible disgrace to the profession. Hasty use of forceps and episiotomy, pituitrin, twilight sleep and hasty, ill-advised cesarean section have all eventually come under the relentless criticism of those who would preserve and practice the noble art of safe and scientific obstetrics.
7. The conscientious and well-trained obstetrician who is well informed and has definite ideas of modern practice will meet emergencies with preparedness, but with full knowledge of the limitations of such service that attend labor. He will anticipate emergencies, will prepare for them, and will choose the successful path through training and experience—if his judgment is good.
8. Should he think more of the economy of time as he holds in the balance the health and life of mother and child, should he attempt the spectacular to be impressive, or make haste when the virtue of patience is needed, should he blunder into violence where nature or skill offers a happy solution—then discomfiture and disaster await him.
9. In that territory marked by sanity, experience, training and good judgment, which lies between meddlesome midwifery and watchful waiting, the field of obstetrics offers to the physician and the specialists (including most of them, if not all) a great opportunity to reclaim and advance a neglected art.

In this chart I present you will note the following: Primipara, 289. Multipara, 511. Infants, male, 414; female 392. Twins, 6 cases. Stillborn and death of child, 16. Illegitimate, 4. Breech, 11. Foot, 8. Face, 2. Occipito-posterior, 3. Brow, 3. Hand, 1. Arm, 2. Prolapse of cord, 1. Turning, 4. Forceps, 58. Placenta Praevia, 1. Adherent placenta, 13. Post-partum hemorrhage, 10. Eclampsia, 9. Spina bifida, 1. Hydrocephalus, 1. Cesarean, 1. Death of mother, 2.

In homes, 793 labors. In hospital, 7. Maternal mortality, ¼ of 1 per cent. Infant mortality, 2 per cent. No maternal deaths from septicemia or hemorrhage. Two maternal deaths—one from toxemia with eclampsia in a patient who had no prenatal care; the other was due to cardio-renal disease. Twins—both healthy.

CASE RECORDS

No. 24. Twins. June 22, 1891. Mother, age 35. Seventh labor. Arrived 3:00 a.m. Pains which began at 1:00 a.m. now strong but twenty minutes apart. Os fully dilated. By physical signs and abdominal palpation I diagnosed twins. First presentation a footling. Pains grew frequent and strong at 4:00 a.m. when first child (footling) born. Male, normal, 8 pounds. Considerable water in second sac and child floating very loosely. Head in left iliac region. Podalic version by external manipulation. Pains infrequent and light. Gave 6 grains of quinine and kneaded womb externally. At 6:00 a.m. a few strong pains as os dilated. Knee presenting. Pushed up knee and brought down foot. Aided delivery of other foot. Pressure of my left hand downward on fundus, externally. Grasped legs in right hand, and with strong pain brought child over on abdomen of mother. Born at 6:00 a.m. The placentae were delivered in twenty minutes. Children, both males, normal, 8 and 8½ pounds. Post period normal.

No. 47. Hand presenting. June 9, 1892. Mother, age 21. Second labor. Arrived at 4:00 p.m. Pains had been strong since noon; began at 6:00 a.m. Os two-thirds dilated. Membrances unruptured. Diagnosed hand presentation. Failed to turn by manipulation. Pains continued strong. Avoided rupturing membranes. Had Dr. Green called at 7:00 p.m. We resolved to rupture membranes and turn child. At 7:30 ruptured membrances, much water escaping. Dr. Green made pressure over fundus. I succeeded in seizing right foot, which I drew out. Chloroform. After drawing out right leg, seized left foot which presented, and soon hips were delivered, but not without considerable traction. Encountered difficulty with arms. Brought right arm, which was posterior, down over chest. Left was well up to face. This was brought down also by hooking forefinger over humerus, and making considerable traction. Brought body over abdomen, making traction, and head was born. Child cyanosed, but resuscitated in fifty-five minutes. Child large, male. Woman and child did well.

No. 87. Eclampsia. May 31, 1893. Mother, age 22. First child. Vertex. Pains began at 4:00 a.m. Arrived at 4:30 a.m. Os dilated one-half and pains strong and frequent. At 7:30 a.m., head was well down and upon perineum. Labor had been progressive and there had been no untoward symptoms except a general edema, of which I had no previous knowledge. Pains were growing more and more "stormy," the woman making but little complaint, when without any warning she was seized with a violent convulsion. Gave her at once a hypodermic of morphine sulphate, one-half grain, and atropin sulphate, 1/75 grain. With the husband administering chloroform under my direction, short forceps were applied and the child was delivered easily. The whole procedure from the beginning of the convulsion did not consume more than twenty-five minutes, and shortly afterward the woman awoke to complete consciousness. In the course of an hour she was given another hypodermic of morphine, one-fourth grain, and enjoined perfect quiet. Left bromide of potassium and morphine and atropin to administer per orum. No other convulsion occurred and her recovery was progressive and complete. Child medium size, female. Three years later I attended this woman in her second labor, which was uneventful. For a few

months before labor had examined urine and had given woman eliminative treatment.

No. 160. Tedious labor. January 23, 1895. Mother, age 19. First child. Vertex. Pains began morning of January 21. Called at 8:00 p.m. Pains light and os not dilated and high. Left anodyne. Morphine and atropin. Next morning no progress. Gave chloral 15 grains every two hours and patient rested well between pains, sleeping some. Called two or three times during the day; at 8:00 p.m. os dilated one inch. Made but little progress during the night, woman sleeping between pains. Returned home at 4:00 a.m. At 8:00 a.m., January 23, os dilated three inches. At 10:00 a.m. os fully dilated. Membranes broke. Child born at 4:00 p.m. This labor was quite tedious, but progressive; the woman and family were patient, and at no time did I see any indication for the use of forceps. Child, male, weight 8 pounds. At my first visit, evening of January 21, I found this woman's father suffering from erysipelas of the face (in an adjoining room). I caused him to be removed to a more distant part of the house and ordered his nurse to refrain from coming into the woman's room, and intervening doors to be kept closed so far as possible. The woman made a good recovery. The case of erysipelas proved obstinate and severe, invading the entire surface of head, then the mucous surfaces of the mouth, nose and ears, and finally producing a cerebral meningitis, from which he died, nearly three weeks after the birth of the child.

No. 202. Threatened convulsion. December 12, 1895. Mother, age 35. Ninth child. Vertex. Child born in five hours with uneventful labor. This woman had convulsions in a previous labor. For ten days previous to this last confinement she had severe headaches, dizziness, cloudiness of vision, and in the day time she imagined the carpet tacks were upside down, endangering the children, and that imaginary neighbors were in the room. Urine: no albumin. At 11:00 a.m., December 11, opened medial cephalic vein and drew off three pints of blood. There was immediate and permanent relief from all troublesome symptoms. Woman confined same night. Woman and child did well.

No. 337. Post partum hemorrhage. September 29, 1898. Mother, age 25. First child. Vertex. Pains began 9:00 p.m., September 28. Woman small and delicate. Membranes ruptured at 10:00 p.m. I arrived at 1:00 a.m., September 29. Os fully dilated. Pains continued quite severe. Head large and slow to mould. At 8:30 a.m. applied (Hodge) forceps and brought head down to perineum, working slowly with each pain. Removed forceps. Chloroform given by attendants under my direction. Woman unable to expel child. Applied short forceps at 9:15, bringing head partly past vulva without rupture of perineum. Born at 9:30 a.m. Had attendant make compression over uterus while I tied cord. Placenta easily expelled in fifteen minutes. Excessive hemorrhage. Passed hand up into uterus, which was not contracting. Cleared out a few clots and made pressure externally, manipulating fundus. With the expulsion of placenta, had given two-thirds dram of normal liquid ergot. The hemorrhage being excessive within five minutes afterward, gave another dram of ergot and the uterus being slow to contract, I held a piece of ice in uterus until nearly all had melted. Soon had contraction. Woman did well. Child, male, normal, weight 9 pounds.

No. 374. Forceps. September 22, 1899. Mother, age 32. First child. Vertex. Pains began evening of September 20, when I was called. Membranes had ruptured. No progress. Rested some during the night. Next day had pains far apart. Os slightly dilated at 8:00 p.m. Pains not effective. Gave chloral in the evening and through the night. Cervix rigid but dilating. At 9:00 a.m., September 22, os dilated three inches. At 2:30 p.m. full dilatation. Applied long forceps. Chloroform. Brought head down to perineum, then applied short forceps, bringing head under arch. Removed short forceps and child born without rupture of perineum. Child, female, 8 pounds. Mother and child did well.

Seventeen years ago, as a member of the Indiana State Board of Health, in a paper at the American Medical Association in San Francisco, I stated: "Maternal mortality is too high. This is true in Indiana where the maternal death rate has not changed in fifteen years, and where the infant mortality rate, 71 per thousand, should be lower. One-half of our baby deaths are from premature births (not counting 10,094 still births in the last five years) and one-half our maternal deaths are due to septicemia. The report on 9,985 pregnancies indicates the need of better conditions, including better obstetrics. Stillbirths averaged one in thirty pregnancies, and miscarriages one in nine pregnancies. Our board, through Dr. Ada Schweitzer, of the Maternal and Child Health Division, is conducting a campaign of publicity and education instructing mothers in baby health conferences, and also teaching public health nurses to become helpers and instructors, and establishing health centers where physicians and nurses give instruction in maternity and infant care, and encouraging local organizations to continue this work." Please bear with me to quote the following interesting figures. In the year ending September, 1899, out of a total of 19,155 deaths in Indiana, 31 were due to parturition, 11 to post-partum hemorrhage and 11 to puerperal eclampsia. In October, 1918, in 4,823 births in Indiana, there were reported 17 maternal deaths due to puerperal septicemia. This same number (17) was reported in December, 1920, in 4,717 births. This would average about 200 maternal deaths per annum from puerperal septicemia.

Have we gained or have we lost by modern obstetrics? This question was discussed in a recent editorial in the *American Journal of Obstetrics and Gynecology*. This valuable contribution, too long to quote in full, deserves careful study. The editors, Drs. Rosmak and Ehrenfest, call attention to the efforts of the profession to elevate obstetrical standards, and also to the increased public interest in maternal and child hygiene. They cite a noteworthy contribution by Frank W. Lynch who had presented a discussion dealing with the relation of "radical" obstetrics to maternal mortality. As pointed out by Lynch and other competent observers, improved methods of anesthesia and operative technic and increased opportunities for interference with labor afforded by hospitalization of obstetric patients have developed radical tendencies entirely out of step with the ultraconservative views of former days. As Lynch so well states, "The radical school feels that childbirth in the hands of nature is too crude to fit in with the ideas of modern life." Improved public health and free clinics and nursing, in developing better hygiene in pregnancy, have cut down the incidence of toxemia and similar states; but shock, hemorrhage and sepsis maintain their toll of victims and these must be ascribed to other factors. Judgment respecting fatalities has taken on new meanings since the preventability factor was featured in the New York Academy of Medi-

cine report on maternal mortality. Lynch considers that in some centers the maternal mortality rate actually has risen because the deaths termed "preventable" are increasing faster than the non-preventable deaths are decreasing. Radicalism is not compensated by the final results. The new school of obstetrics, Lynch declares, needs an adequate control of men and procedures with only well qualified operators doing major obstetrical surgery. But untrained men in this field are no greater menace than where skill ignores conscience and ethics. Fortunately, most confinements terminate normally, but we have imposed routine analgesia for pain relief, we have developed operative terminations to delivery, where these are uncalled for. We have neglected or set aside the "*obstetrical conscience*." Medical and post-graduate schools and hospitals are awakening to the gravity of this situation.

Lynch believes that we must develop more completely staffed maternity services in general hospitals, so that a larger group can obtain adequate experience. But all this will be of little avail unless we can agree about the limitation concerned with conservatism and radicalism in obstetric procedures. I am not convinced that we can be entirely satisfied with the stamp of approval, "accredited," placed upon a hospital by the American College of Surgeons. In recent years, obstetrical training has been largely in the hospital. The young physician without experience in home obstetrics has often followed his intern training and urged routine hospitalization. The situation calls for careful consideration. The obstetrician who insists that all his cases go to the hospital thus confesses an attitude of inadequacy if not inefficiency. A study of today's obstetrical literature leads to the conclusion that hospitalization, by and large, has not solved the obstetrical problem. An obstetrician of thirty years' experience, and a hospital official, said to me recently, "Too many obstetricians insist upon routine hospitalization and place too much responsibility upon interns and nurses. Behind closed doors with absolute authority the service is autocratic, masked by technical secrecy."

Here the potential danger lies in hasty, ill-advised and possibly unethical procedure. Speed in delivery in record time has added to the perils of childbirth. Thus we have "the streamline baby" featured in sensational current day literature. To guard the advance of science and to protect a noble art, the situation calls for an essential study of hospital obstetric records and competent supervision of practice.

At this juncture, I deem it relevant to introduce an official report, obstetrical department of *X* Hospital, Indiana, for the years 1933-1937, inclusive. This report is informative and invites analysis.

In slightly less than 2,000 labors, we find 11 maternal deaths, a mortality of .55 per cent. Death of infant newborn, 72, a mortality of 3.6 per cent. This number, with the stillborn, 57, brings the total fetal mortality to 129 or 6.5 per cent. You will note 58 cesarean sections, 36 low flap and 22 classical. It may be of interest to observe the epidemic of cesareans in 1933 when there were 22 in a total of 259 deliveries, nearly one in every ten births. Quarantine or something seemingly put a ban on this spectacular procedure and each of the following years the cesareans were less than one-half of the 1933 figure, while the total births were nearly doubled. These hospital records call for a detailed study of the conditions encountered and the methods and measures employed. We should know more of the causes that are responsible for the high maternal and infant mortality rate. The hospital is a fairly large one, with the approval "accredited" of the American College of Surgeons. A very active and responsible member of this hospital staff, who assisted in preparing this report, wrote as follows: "I was astounded at the number of newborn deaths and stillborns."

While contemplating these figures the past two years, and while studying the recent obstetrical literature, I have been led to wonder just where we stand today in modern obstetrics. In this connection I recall certain words defined by a former President of the United States, now deceased. He said, "By radical I understand one who goes too far; by conservative one who does not go far enough; by reactionary one who won't go at all." And he said, without undue modesty, "I suppose I must be a progressive, which I take to be one who insists on recognizing new facts, adjusting policies to facts and circumstances as they arise." These definitions applied to obstetrics may help us make a classification that represents the practice of today.

OFFICIAL REPORT OF X HOSPITAL, INDIANA, OBSTETRICAL DEPARTMENT FOR THE YEARS 1933, 1934, 1935, 1936, 1937

Year	*1933*	*1934*	*1935*	*1936*	*1937*	*Total*
Number of labors	259	261	365	437	643	1,965
Normal	160	160	194	227	297	1,038
Breech	7	13	16	16	23	75
Version	9	10	19	17	34	89
Cesarean section	22	11	7	9	9	58[1]
Low forceps	57	61	122	141	211	592
High forceps	4	6	6	0	9	19
Cephalic presentation	*	228	322	402	567	†
Episiotomy	*	61	104	132	177	†
Voorhees bag introduction	*	6	4	15	61	†
Placenta Praevia	*	3	3	10	3	†
Consultation	*	31	18	49	61	†
Death of mother	3	1	0	2	5	11
Death of infant newborn	10	22	6	9	25	72 } [2]
Stillborn	6	6	10	13	22	57 }

* Not obtained. [1] Low flap, 36; classical, 22. † See page —. [2] Total 129.

Cesarean, 1 in every 33 labors. In 1933 were 22 in 259 labors.

Maternal deaths, 11; mortality .55 per cent. Fetal mortality, 129; mortality 6.5 per cent.

* Not obtained.
† See page —.
[1] Low flap, 36; classical, 22.
[2] Total, 129.

This summer, while working on this paper in the library of the Los Angeles County Medical Society, I found an interesting and, I believe, valuable paper in *California and Western Medicine* on "Obstetric Complications" by Purvis L. Martin, M.D., San Francisco. This reports 10,708 labors in the University of California Hospital. Its keynote is found in the statement, "Conservatism in obstetrical management remains the policy of choice by .21 per cent maternal mortality and 3.6 per cent fetal mortality. The choice of a method of delivery for any given case is never complete without considering the pelvis, position, size of baby, character of pains and condition of the soft tissues." Low cesarean brought but one death in 278 cases, and is also used where high forceps were used formerly. Mid forceps limited to compelling indications, usually maternal. Perineal forceps used in 8.7 per cent of total material with no increase in maternal or fetal morbidity or mortality. Version and extraction used in only 38 of the 10,708 cases, with two maternal deaths. Three hundred and sixty-eight breech with no maternal mortality and 12.3 per cent fetal mortality. Four maternal and 37 fetal deaths among 481 nonconvulsive toxemias. No maternal deaths and five fetal deaths among eclamptics. Since 1928 mortality in heart cases greatly reduced by cooperation between cardiologist and obstetrician. Increase in quality and duration of prenatal care has reduced number of desperate cases entering hospital. Careful and earlier selection, and preparation of patients for cesarean have eliminated high maternal and fetal toll formerly due to high forceps, difficult mid forceps and version. You have probably noted an extended review of this excellent paper in the *Journal of the American Medical Association* of October 5.

If you attended the 1936 session of the American Public Health Association, you probably heard a record-making report on Maternal Mortality of the Chicago Maternity Center by Beatrice E. Tucker, M.D., director, and Harry B. Benaron, M.D., associate obstetrician. This report shows how, while working under adverse conditions, with patients physically below par, with a minimum budget the center was able to maintain a gross maternal mortality of 0.142 per cent over the four-year period, July 1, 1932, to June 30, 1936, inclusive.

Inheriting the fine obstetrical tradition and principles of its founder, Dr. Joseph B. DeLee, the Chicago Maternity Center takes care of poor women in their homes during confinement and teaches doctors, medical students and nurses the science and art of obstetrics. We remember that of the 2,200,000 babies born in the United States each year, 60 per cent are born in the home.

In the four-year period the Maternity Center gave obstetrical care to 14,355 women in their homes. Six hundred and eighty-six women were hospitalized for some complication of pregnancy. Six hundred and seventy-three operative deliveries were in the home. These included mid-forcep operation, version and extraction, operative breech delivery, craniotomy and vaginal cesarean section. There was one section to every 154 deliveries. Maternal deaths were: puerperal sepsis 4, toxemia 4, post-partum hemorrhage 2, tuberculosis 5, pneumonia 2, meningitis 1.

The principles of sound obstetrical practice of the center are: 1. A trained obstetrician is in complete charge. 2. Adequate prenatal care. 3. A graduate doctor, a medical student and nurse are in constant attendance during labor. 4. Adequate equipment and personnel for normal and operative deliveries. 5. Uniformly simple, intensive aseptic technic. 6. Isolation. Patient is truly isolated in the home and not exposed to a congregation of infected cases. 7. Low operative incidence, 6 per cent. Conservative use of cesarean 1 to 154 deliveries. Rectal examinations preferred. 8. Good hospitals available. 9. Hemorrhage control. Doctors are taught to save blood and take alarm early. 10. Pituitrin absolutely barred until after birth of baby. 11. Sane use of obstetrical analgesia and anesthesia. All repairs and 85 per cent of the operative deliveries performed under local methods. 12. While entire reversion to home obstetrics is not desirable, yet we show that as good results can be obtained at home as in the maternity hospital at a much lower cost to the community. The home service is ideal from a teaching standpoint because here the students, doctors and nurses have opportunity to observe labor from beginning to end. But home service must be supplemented by hospital service. The two working together can do much to lower maternal mortality and the cost of obstetrical care.

According to press reports, at a recent meeting of obstetricians at Indianapolis, papers read were reported as advancing the explanation that fear of pain is causing birth decline; that women are not having as many babies as formerly because it is rather a painful process. In my opinion this statement can well be questioned from a doctor's viewpoint. I cannot believe that the modern woman has lost any of the courage of her pioneer ancestor. It takes a genuine brand of courage for woman today to face and meet the exigencies of modern life. Doctors who know the people, who know their families and their problems understand that there are several factors responsible for our declining birth rate, and fear of pain is of relatively minor importance. In many homes we see economic stress shunning the stork. The great army of women in business and industry has brought a change in domestic relations. Apartment life, automobiles, sports, many modern luxuries have absorbed cash and displaced earth's sweetest music—the baby's prattle. Birth control is another factor, but as yet it has not invaded the stratum where it seems to be most needed.

Modern obstetrics must, of course, use all reasonable treatment to make childbirth safe and easy where possible, because this is scientific and hu-

mane; but not because modern women are losing courage. In attempting to justify or condone meddlesome obstetrics, we sometimes hear it said that women are wiser and weaker; that the average woman is losing the physical equipment for childbearing. This statement also may be justly challenged. In my early practice, back in the "Gay Nineties" women lived and worked in a realm remote from now. They were bound down by tradition; shut in; deformed by rigid corsets; held back and dragged down by heavy, long, trailing skirts. Their nutrition, even among the well-to-do was insufficient, unsuited for normal gestation. They had run the gamut of diphtheria, scarlet fever, typhoid, rheumatism and other infections. Many of these women came down to childbirth greatly handicapped and physically unprepared. These women we attended in labor—seeing many of them for the first time and without prenatal care.

The woman of today has been relieved of many of these handicaps. There is more freedom of action, more athletics, more out-door life, more travel, more recreation. Her dress is sane (excepting shoes), permitting free movement and comfort. Modern knowledge of foods has improved her nutrition. Health is more guarded. Life is safer, longer and should be better. Thus prepared for childbearing and with prenatal care her chances for successful parturition have been enhanced. But modern life is bringing an added danger to the expectant mother. She who is intelligent, who is self-restrained is obeying the admonition: alcohol and tobacco are taboo.

CONCLUSIONS

With increasing prenatal care modern obstetrics should distinctly lower maternal and infant mortality. Exploiting the widening scope of mechanical interference in obstetrics will bring disappointment and disaster.

With the doctor, every attitude, every choice, every decision in obstetrics should be guided by intelligence, training, skill, good judgment, reasonable patience and conscientious devotion to motherhood and to the science and art of obstetrics.

Health officials should scrutinize and analyze obstetrical practice, and cooperate in reducing maternal and infant morbidity and mortality.

EARLY PHYSICAL THERAPY IN THE TREATMENT OF FRACTURES OF THE SURGICAL NECK OF THE HUMERUS*

GEORGE J. GARCEAU, M.D.
SHIRLEY COGLAND
INDIANAPOLIS

Fracture of the surgical neck of the humerus is one observed most frequently in children and in elderly people. The incidence in the young adult and middle-aged is low. Fracture of the surgical neck with comminution is observed in the elderly group almost entirely.

The deformity of fragment displacement in the surgical neck fractures without comminution is influenced almost entirely by the muscular forces. The long distal fragment is displaced anteriorly and adducted by the pectoralis major, latissimus dorsi, and the teres major. The pull of the supraspinatus abducts the short upper fragment which is composed mostly of the head and a very short portion of the shaft. Impaction at the line of fracture is fairly frequent.

Anterior displacement of the lower fragment can be visualized best in a lateral roentgenogram. Stereoscopic views are less satisfactory although the anterior displacement can be seen in a good stereoscopic plate.

Most fractures of the surgical neck necessitate reduction by manipulation and a considerable percentage require an open reduction. The soft tissue impaction into the fractured surface of the lower fragment frequently prevents closed reduction. After reduction is obtained, it is easily maintained in an abduction splint of either metal or plaster. Recently we have used a sling and swathe for immobilization and with much satisfaction to the patient. About one week after reduction, the bandage is removed and physical therapy is started. At first three treatments a week are given. Later two treatments with or without supplementary home treatments are recommended. Finally the treatment is given at home entirely. The patients treated in this manner have all had a good functional range of motion at the end of six to seven weeks.

Fractures of the surgical neck of the humerus with comminution occur most frequently in elderly people. Often the general health of the patient is a contraindication to a general anesthetic necessary in most instances for manipulation and open reduction. Accurate reposition of fragments and immobilization in a splint or plaster cast would seem to be hazardous. If there is much displacement, an attempted manipulation under local anesthesia can be undertaken to improve the position of the fragments. This sling and swathe plan has been followed in about thirty patients with

* Read before the section on Physical Therapy, Tri-State Hospital Assembly, Chicago, Ill., May 2, 1940.

gratifying results. In all cases at least 75% of normal function has been restored.

In the young group, immobilization in a metal or plaster abduction splint may be desired but is not entirely necessary. A good reduction is essential and can be maintained by the sling and swathe type of immobilization.

The one great contraindication to the sling and swathe method of immobilization is a displaced greater tuberosity of the humerus. In such cases the humerus must be abducted to bring it in contact with the tuberosity.

In the treatment of fractures of the surgical neck of the humerus, physiotherapy has as its major objective the restoration of function simultaneous with the healing of the fracture and at a rate of progress compatible with it. Due to the wide range of individual differences, it is impossible to plan a rigid program and follow it exactly. In general the treatment follows this plan, with variations made at the discretion of the doctor or physiotherapist.

During the first week following fracture, no treatment of any sort is given. The arm remains immobilized in sling and swathe which are not removed.

At the beginning of the second week, the sling and swathe are removed and treatment is begun. The sling is reapplied after each treatment, but the swathe is no longer necessary for adequate support. During this week, passive motion only is given to the shoulder in a supported position with active exercise to the elbow, wrist and hand. The patient is placed in a back-lying position with the arm supported on a small pillow and the sling carefully removed. The sling may also be removed in the standing position without pain or injury, provided the forearm is not allowed to drop abruptly. Infrared heat is applied for 15 to 20 minutes followed by massage, gentle stroking to the entire arm, and kneading to the muscles of the forearm. Exercise begins with the more simple ones to lessen apprehension and proceeds to actual motion in the shoulder joint. Active flexion and extension of fingers and wrist are followed by flexion, extension, supination, and pronation of the elbow. Elbow extension is likely to be quite painful at first and must be done slowly and carefully. At the shoulder, abduction is initiated first. With the forearm supported to prevent rotation and the arm grasped above the elbow to reduce leverage, the shoulder is stabilized by firm pressure on the acromion and along the spine of the scapula. The arm is moved very slowly through a few degrees of abduction. The motion must be kept within the limits of pain, and motion must be stopped at the first sign of spasm. If done carefully, it is possible on the third or fourth attempt to obtain 70 to 90 degrees of abduction. This is also true of flexion which is done in the same manner. Rotation is the most painful and difficult to get, but seems easier when preceded by the abduction and flexion, and if done with the arm in about 30 degrees of abduction. The arm is put through each motion about five times, followed by gentle stroking. Circumduction is best obtained in the standing position. With the arm held either in the sling or in the other hand, the patient stands and gradually removes the support, allowing the arm to hang freely at the side. By holding onto the edge of a chair or table and bending forward to a right angle, the arm falls passively into a position of flexion with some horizontal abduction. Moving the trunk causes the arm to move through a small range of circumduction which can be increased without pain with slight assistance. After the first treatment it is frequently more satisfactory to give circumduction at the beginning followed by passive exercise in the back-lying position. During this week, three treatments of this type are recommended on alternate days.

At the beginning of the third week following injury, assisted active exercise is substituted for the passive exercise, through the same range of motion. The positions and technic are the same but the patient is encouraged to participate actively in the motions. In some instances, attempted active motion at this time resulted in increased pain and spasm and had to be postponed for several more days. During this week, at the discretion of the doctor, a small amount of home exercise may be started. The patient is allowed to remove the sling several times daily and for short periods and to attempt circumduction in the forward bend position with the arm hanging down.

Assistance with the exercises is reduced gradually until by the fourth week active exercise against gravity may be attempted in the sitting or standing position. Abduction and flexion are first obtained by creeping up the wall with the finger tips, permitting a greater range of motion than is possible unassisted. For inward rotation the patient attempts to put his hand behind him. For outward rotation the patient stands facing the wall and close to it with both elbows bent and both hands against it. Finger creeping up the wall, he attempts to get both forearms resting against the wall with the upper arm abducted to 90 degrees. By doing it with both arms simultaneously, substitution and evasion are eliminated.

As soon as the patient is able to do an exercise unassisted and without substitution of scapular motion for motion in the shoulder joint, he is permitted to attempt it at home, usually during the fourth week. Among the first is setting of the deltoid muscle without motion to improve strength. The patient is seated in a chair with the arm resting on a table in about 60 to 65 degrees of abduction. By depressing the scapula actively, a strong contraction of the deltoid is obtained. All home work is more satisfactory if preceded by an application of mild heat in whatever form available.

Use of the sling is continued as long as the patient feels the need of support, but usually with the beginning of active exercise at home he can

begin to leave it off for gradually increasing periods of time until it is entirely abandoned. Active use of the hand and wrist is encouraged from the beginning and of the shoulder with the removal of the sling. During the fifth week, home treatment usually entirely replaces office treatment except for occasional checks on progress to encourage continued work and to assure us that there is no retrogression. This, plus active use, removes residual stiffness and limitation of motion.

Rate of progress is determined by the absence of pain or spasm. No force is applied at any time and all activity is kept within the limit of pain. If any motion results in spasm, especially of the adductor group, a return to the previous range is indicated.

The time element is much shorter than that incident to immobilization in splints. Long immobilization is not necessary because fractures through cancellous bone heal rapidly. The limitation of motion in the shoulder following fractures of the surgical neck of the humerus is due to contracture of the soft tissues about the shoulder. This plan of treatment prevents serious contractures and, therefore, seems the treatment of choice. Early and properly administered physical therapy shortens the period of disability at least fifty per cent.

THE MENOPAUSE*

DAVID A. BICKEL, M.D.
SOUTH BEND

In their life span, all living things are destined to go through three definite stages. The first stage is that of growth, the second is that of maturity, and the third is senescence. The complete transition from one stage to another is not sudden, but is a gradual process. In the case of man, the change from the growth stage to that of maturity is known as adolescence, and the change from the period of maturity to senescence is usually spoken of as the climacteric. During this period of transition changes are observed in both sexes, as are changes observed in all plant and animal life following the period of maturity. In man these progressive changes occur over a period lasting from approximately the forty-fifth to the sixtieth year.

In the human female the most outstanding event which takes place during the period of adolescence is the onset of menstruation, or the menarche. Although the menarche is the most impressive incident in the period of adolescence, as is the menopause in the climacteric, they do not determine the beginning or end of either process. During the so-called climacteric period, certain physical and emotional changes occur in both sexes, such as increase in weight and ease of fatigue (the so-called let-down feeling) which signify the gradual approach of senescence. In the case of the female, the approaching climacteric is heralded by a cessation of gonadal function, while in the case of the male the testicles do not undergo degenerative changes more abruptly than other tissues and organs of the body. It is perfectly correct to speak of the male climacteric, but obviously not the male menopause.

Considerable confusion exists concerning the definitions of certain terms used in describing the change from the stage of maturity to that of senescence. This discussion is to consider clinical manifestations and tissue changes associated with the cessation of the reproductive cycle which is correctly termed the menopause.

Many statistical studies have been made to determine the usual age of the onset of the menopause. Some of these may be inaccurate because they have been made by physicians or in clinics where only women seeking medical care have been considered. Many of the theories concerning the onset of the menopause, such as that an early menarche would signify a late menopause, or that the reproductive life of a woman exists for a fixed number of years, have been proven to be wrong. Climate, race, child-bearing, and social status seem to have little bearing on the age of onset of menopause, although heredity may be a factor. It may be assumed quite accurately that the majority of women reach the menopause between the ages of 45 and 50, and that 46 years may be taken as an average. A permanent cessation of menstruation before the fortieth year is usually considered a premature menopause, while after 50 it is spoken of as a delayed menopause. Incidents of so-called premature menopause are more likely to result from pituitary failure than from ovarian failure, and are not physiologically and clinically identical with the menopause occurring at the usual age.

In the older literature cases have been reported of the menopause occurring at the ages of from 60 to 104 years. These were no doubt instances where bleeding persisted from organic disease, and not true menstruation.

Distinct morphological and functional changes occur with the menopause. These changes are particularly marked in the pelvic organs and in the endocrine and vegetative nervous systems. Briefly, the changes in the pelvic organs are as follows: The ovaries undergo a decrease in size and weight because of atrophy of their functional

* Read before the St. Joseph County Medical Society, March 11, 1941.

structures. The surfaces become smooth, and there is a marked increase in the connective tissue of the entire organ. The ovarian follicles and corpora lutea disappear, while the blood vessels undergo marked sclerotic changes, and may become hyalinized and obliterated. The uterus decreases in size and sclerotic changes appear in the vessels. The size of the cervix diminishes and its glands cease their secretory activities. Changes in the endometrium are especially pronounced as the result of total disappearance of its stimulating hormone estrogen. There is thinning of the entire membrane, with a marked decrease in the number and size of the glands. The stroma becomes much more dense. Changes also take place in the vagina. There is a general atrophy caused by the increase of connective tissues, and the decrease in blood supply. The normal cornified epithelium is replaced by a thin layer made up, chiefly, of basal cells, and containing numerous leukocytes. Inflammation and adhesions may occur in the vagina—the so-called senile vaginitis. The histologic appearance of the vaginal epithelium indicates the presence of estrogenic activity, and is useful as a guide in treatment with estrogenic substance. The loss of elastic tissue in the pelvic supporting structures predisposes to genital prolapse. Prolapse of the mucous membrane of the urethra is common, following the menopause, and is frequently mistaken for urethral caruncle.

Although the outstanding change in the endocrine system is the cessation of ovarian function, most of the endocrine glands undergo simultaneous changes. The anterior lobe of the pituitary, which plays the dominant role in the entire reproductive system through its secretion of gonadotropic hormones, undergoes histological changes, and a marked increase in gonadotropic substance is found in the blood and urine. This increase in gonadotropic substance in urine accounts for the occasional false Aschheim-Zondek test during the menopause. The increase in the pituitary activity produces an increased activity in other endocrine glands, particularly in the thyroid and adrenals. Although many symptoms of the menopause simulate hyperthyroidism, increases in the basal metabolic rate have not been observed. Both the cortex and the medulla of the adrenals receive increased stimulation from the pituitary following the menopause. Many of the secondary male sex characteristics which appear in women during and following the menopause are probably the result of stimulation of the adrenal cortex. The pluriglandular reaction associated with the menopausal syndrome accounts for the instability of the vegetative nervous system.

In differentiating the symptoms of the menopause from pre-existing instability of the nervous system and organic disease common at that period of life, one may encounter serious difficulty. It must be kept in mind that in the female, as in the male, fatigue neurosis, cardiovascular disease, malignancy, renal disease, and visual disturbances are common in the fifth decade of life. The co-existence of these diseases makes the diagnosis of the menopausal syndrome even more complicated, and the effects of treatment uncertain.

Aside from the cessation of menstruation, the most frequent symptom of the menopause is a vasomotor disturbance known as "hot flushes," which may annoy the patient for some time either before or after the actual cessation of menstruation takes place. They may occur a few or many times in the course of a day, and are frequently the cause of insomnia at night. The flushes usually last only a few minutes and are frequently followed by cold sweats. These troublesome experiences are truly characteristic of the menopause, and are the symptoms which usually bring the patient to the physician. Palpitation, tachycardia, and extra cardiac systoles are frequently observed when there is no organic heart disease, and are particularly common following only slight exertion. Certain changes in personality are frequently observed at this time, such as carelessness in dress and personal appearance.

Although the occurrence of true hypertension is common at the menopause age as the result of cardiovascular or renal disease, it is also very common to observe a temporary rise in the blood pressure at this time. This temporary hypertension is characteristic of the entire menopausal syndrome, and the result of the instability of the neuroglandular system.

Among the nervous symptoms present at the time of the menopause may be found headache, dizziness, pruritis, formication, numbness, and tingling of the extremities. Painful and tender joints are frequently found in menopausal patients, and the condition is spoken of as menopausal arthritis, but is really arthralgia of vasomotor origin, and is relieved by estrogen therapy.

Insomnia is one of the most distressing and common symptoms of this period, but fortunately can be relieved by simple sedatives.

Psychic changes stand out prominently in the parade of menopausal symptoms. They may vary from peculiar moods to definite pathological states. Involutional melancholia is the most frequent form of psychosis observed at this time. Although the menopause is not a direct cause of insanity, it may furnish the emotional trauma to transform a prepsychotic personality to a psychotic one. There are a number of factors which influence the psychic state of women at the time of the menopause: the fact that they are advancing in years; that their reproductive period is past; that many feel that their period of sexual activity is also over; that they have ceased to be attractive to the male sex; and also that they have been subjected to many terrifying misconceptions regarding this so-called critical period.

Among the common manifestations of emotional instability are periods of depression, crying, and fear. It is quite characteristic that menopausal women are affected more by sadness than by joy.

There is considerable variation in the change in libido as the result of the menopause. In general the sexual feeling is somewhat decreased, although in many women there is no change, and in a few it is reported that the libido is markedly increased. This occasional increase in sexual feeling accounts for some of the romantic adventures of women at this time of life.

Abnormal uterine bleeding is common, and of special interest at the time of the menopause. During this period many women have neoplastic diseases of the uterus or metropathic hemorrhagica, or hyperplasia of the endometrium. That functional uterine bleeding should quite commonly appear at this transition period from menstrual regularity to amenorrhea is probably due to an increase in the estrogenic hormone and lack of the corpus luteum hormone. The important point to remember is that uterine bleeding is not a normal accompaniment of the menopause, and it should not be disregarded or treated until its etiology is determined because of the danger of overlooking a malignant lesion.

The management of the menopause is not simple; it is a difficult medical problem. Women should be advised to have a thorough general and pelvic examination at this time of life, whether treatment is indicated or not. The menopause and the climacteric are physiological processes and in the majority of cases do not require any medical treatment.

When treatment is required it divides itself into two classifications: general and specific. The first step in the management of the menopause should be an attempt to improve the patient's mental attitude. Today the mental attitude of women regarding the menopause is healthier than it was a few years ago; still, much can be done to impress upon the woman that this is a normal physiological process. It should be explained to the patient that this is not at all a critical time in her life, that cancer is no more prevalent at this time than at other times, and that women are not prone to go insane with the cessation of menstruation. These women should be informed that the majority do not require any medical treatment, that their sex life is not at an end, that, with care, they are not likely to become fat and flabby, and that with the cessation of menstruation the danger of pregnancy is over. Many women at this time have finished rearing a family and should be advised to engage in some outside activity and enjoy leisure which they have desired for many years. A short time spent in explaining the physiological nature of the menopause to these women will often dispel many of the erroneous concepts concerning the condition, and improve their psychic state.

Special attention should be given to general hygiene. This especially applies to matters of diet, rest, sleep, fresh air, and recreation. For the majority of psycho-neurotic symptoms, especially the headache, insomnia, and restlessness, some form of sedation is indicated. The most useful remedies for these symptoms are bromides and barbiturates. The physician should not overlook the factor of suggestion in any form of therapy. A few years ago enormous amounts of desiccated ovarian substance were given to thousands of women, with the mistaken idea that it contained hormones. Many women had relief of symptoms, and their physicians had a feeling of satisfaction with this medication which could only result from suggestion.

SPECIFIC TREATMENT

The specific treatment of menopause consists of substitutional endocrine therapy with the female sex hormone, estrogen, or synthetic non-hormonal estrogenic substance, such as stilbesterol. The natural estrogens are estrone, the excreted form of estrogen which has been isolated in pure form from human pregnancy urine. Estriol is a weak natural estrogen, extracted from placenta, and has a limited sphere of usefulness. Another substance, estradiol, chemically different from the two former substances, has also been isolated from placental tissue and pregnant mare's urine. It is the estrogen found in the graafian follicle and corpus luteum, and is the most potent natural estrogenic substance known. A new synthetic product, known as stilbesterol, has been synthetized by Dodds of London.[1] This drug is many times more active than the natural estrogens, but has the disadvantage of being toxic. In comparison with estrone, Chen[2] has found it to be eleven times more potent when given by the oral method, and twenty-five times more potent when given intramuscularly.

For the usual case of the menopausal syndrome, from 20,000 to 50,000 international units of a standardized estrogen should be given during the first week of treatment, and weekly doses of 10,000 units should be given until the patient has received at least 100,000 units. It is doubtful that smaller doses than this are effective. When an estrogenic substance or pure estrone is given by the oral method, usually 1,000 to 2,000 units should be given daily. Unfortunately we do not have a single accepted standard of unit potency. The maximum dose of stilbesterol that can be given without toxic results is one mg. per day. There is no doubt that the oral method of administration of estrogens is effective. This has been proved both by vaginal cell response and symptomatic relief.

There has been some concern expressed as to whether or not large amounts of estrogenic substance may be a causative factor in cancer. Recently Geist & Salmon[3] have given over 1,000,000 units in the course of a month to each of a number of patients, and have found no proliferative changes in the endometrium suggestive of malignancy. Until

[1] Dodds, E. C., Goldberg, L., Lawson, W., Robinson, R.: *Nature*, London. 41-247, 1938.

[2] Chen K.: *Quarterly Bulletin, Ind. Univ. Med. Center*. January, 1941.

[3] Geist and Salmon: *Amer. Jour. Obs. and Gyn.*, 41-29, 1941.

we have more information on this subject, however, we should hesitate before giving large doses of estrogen to patients who have, or are thought to be cured of malignant disease of the pelvic organs or breasts.

The hormone treatment of hemorrhage of endocrine origin at the time of the menopause consists of thyroid, progesterone, and probably the most effective, testosterone. If these hormones do not control the condition promptly, the patient should be given radiation therapy, which is permanently effective in nearly all cases.

The success of treatment of the menopause syndrome with estrogenic substance depends on an accurate diagnosis of the condition and adequate dosage of the hormone. The physician should always evaluate the suggestive factor in any form of treatment administered to relieve menopausal symptoms.

104 SOUTH MAIN ST.

ENDOCAVITARY ASPIRATION

MONALDI PROCEDURE

FREDERICK L. GILES, M.D.
KEALIA, KAUAI, HAWAII

The treatment of pulmonary tuberculosis is the treatment of cavities in the lung. Because of the high fatality rates resulting from open cavities, the closure of these cavities has formed the chief problem in the treatment of pulmonary tuberculosis.

To the already many types of collapse to be used in cavity closure is now to be added endocavitary aspiration or Monaldi technique for cavity closure.

Early in 1938, after some experimentation on dogs and models, Professor Monaldi of the Instituto Carlo-Forlanini in Rome first attempted the transthoracic puncture of the cavities of the lung resulting from tuberculosis. Upon measuring the pressure inside the cavities it was found to be -3+10 in the average case.[1] This explained the circular balloon-like appearance of the cavity and the constant growth and also possibly their occasional sudden closure. Coryllos[2] in U. S. had previously made these same findings. Monaldi went further, however, to reason that by constant decompression of the cavity the positive pressure would be nullified and the elasticity of the walls of the cavity would help to close the cavity; the same effect would be obtained as would result from a closed bronchus to that cavity. Likewise the caseous debris lining the cavity would be sucked out through the tube to be replaced by more healthful granulation tissue which would unite the walls of the cavity in a firm scar. The space then occupied by the cavity would be replaced by the reexpanded alveoli about the cavity which had previously been made atelectatic by the pressure inside the cavity.

The pressure inside the cavity is brought about in the following manner: On inspiration the air is inspired through the bronchus into the cavity by the negative intra-pulmonic pressure. On expiration or cough, the intra-pulmonic pressure is increased and likewise the intra-cavitary pressure is increased. The latter pressure is greater, however, because of the usual small draining bronchus to pulmonary cavities, probably plugged by necrotic material and mucus preventing escape of inspired air. The pressure of the captured air is then exerted on the walls of the cavity, causing increased size and ballooning.

INDICATIONS FOR USE

The most important requirement is that an artificial pneumothorax shall have been attempted for cavity closure and failed because of pleural synthesis. The cavities most suited for this procedure are the thin-walled type of cavity resulting from fibro-caseous disease surrounded by very little if any pneumonic consolidation. They are usually the type of cavity which appears suddenly as the result of small traumatic rupture of alveoli and grown by subsequent internal pressure. They may be located anywhere in the lung field, but closure is more satisfactory away from the hilum of the lung and in the upper half of the lung.

TECHNIQUE

The cavity is located by x-rays from various angles. About forty-five minutes before the operation, the patient is given a preparatory dose of codeine and sedative. The skin of the hemi-thorax is shaved and prepared twenty-four hours previously.

With the patient on his back on the x-ray table under the fluoroscope, the cavity can be easily visualized and by use of a skin pencil the skin directly over the cavity can be marked for a guide to the exploring needle. The skin is now prepared and drapes are placed so that the patient's face is visible. Using 1% novocaine, the area is marked and the tissue to and including the parietal pleura is anesthetized. Now by using a 5 inch, 18 guage

---

[1] Monaldi, V.: Procedimento di aspirazione della caverne tuberculari del polmone; basi Theoriche, *Ann. dell Istituto Carlo-Forlanini*—1938, 2, 665.

[2] Coryllos, Pol N.: Pulmonary Tuberculosis. Comet Press, 1937.

needle attached to a 2 cc. syringe, the cavity is located entering the skin perpendicularly at the point marked. The entrance into the cavity is marked by a sudden loss of resistance at the needle point and, just as in entering a pneumothorax cavity, the plunger of the syringe can be easily moved up or down; likewise a reading may be taken on the water manometer. The depth of the cavity is likewise noted.

The needle is now removed and the special Bottari-Bobolini trochar or its Kupka modification is then inserted along the tract of the needle until the cavity is entered. A reading is again taken on the manometer to be sure that the cavity has been entered. The catheter or rubber tube is inserted through the trochar and the trochar threaded outward when it is sure the end of the tube is inside the cavity. Another reading should be taken at this time to note if the catheter or tube is still inside the cavity because there is danger here of pulling out the tube as the trochar is removed. An x-ray can now be taken, preferably a Bucky plate to determine the exact location of the tube and to use for future reference.

At times the tube may be accidentally pulled out and, if so, it can be reinserted along the same tract as in the original insertion.

The suction is secured best by the use of two aspirating bottles connected through a 50 cc. flask equipped with two-way rubber stopper and glass tubing to the rubber tube. This suction should be applied according to the needs of the patient. If the patient has been made uncomfortable by cough, pain, and profuse expectoration, suction may be applied for two hours, three times daily, for the first two to three days, then regularly during the day except at eating periods. If no discomfort has previously been present as a result of the cavity, the suction is applied twenty-four hours after the insertion of the tube. The tube should be closed when it is not attached to suction.

The material aspirated into the 50 cc. flask is at first frankly blood or blood-tinged purulent and caseous material. In a few days the blood disappears and the caseous and purulent material continue, but as days go by the purulent material decreases and becomes more serous in appearance. Tubercle bacilli decrease in numbers and disappear from the aspirated material and the sputum. The quantity of aspirated material gradually decreases as the cavity closes. Some purulent material may be aspirated later if there has been much irritation of the skin about the inserted tube, especially when the cavity is nearly closed and the tube is placed shallowly in the lung.

The average length of time required for the closure of the cavity is three months. The tube is gradually extruded from the cavity by the closure and union of its walls. The skin about the tube should be dressed daily with alcohol and dry dressing applied.

COMPLICATIONS

Hemorrhage is the most frequent complication, though rare in Monaldi's series, and I have not yet encountered it. Failure of a sinus to close after discontinuance of the tube has not been encountered although there may be some delay.

Empyema is possible if there have not been adequate attempts made to initiate pneumothorax and determine the extent of pleural space. This procedure cannot be used if there is any space present.

Advantages of such a procedure are that it obviates the necessity of a severe and often fatal operation. It decreases the possibilities of deformity and invalidism after procedures for cavity closures. It can be used in individuals who do not meet the requirements for thoracoplasty either because of age, amount of disease, size of cavity or other contra-indications. Endocavitary aspiration is not meant to replace the thoracoplasty.

This is a new procedure and the permanence of closure is not yet known with certainty; after one year, Monaldi[3] has had none re-open.

[3] Monaldi, V.: Personal Communication.

ABSTRACT: TREATMENT OF GONORRHEA WITH SULFATHIAZOLE

A four to one chance of cure of gonorrhea in men within five weeks after beginning of treatment with sulfathiazole and sulfapyridine has been reported by the United States Public Health Service. Comparison of gonorrhea cases treated with the two drugs indicated sulfathiazole is the more effective. Sulfathiazole works faster in clearing symptoms and is less toxic than sulfapyridine.

The report was based on findings in eight clinics cooperating with the Public Health Service and the American Neisserian Medical Society. The apparent cures were based on disappearance of symptoms and negative bacteriological tests.

At the end of five weeks either drug had cured 82 percent of the patients, although sulfathiazole cleared the symptoms of 61 percent in the first week as compared with 44 percent for sulfapyridine.

Toxic reactions of such severity that treatment had to be stopped occurred in 3.8 percent of sulfapyridine and 1.3 percent of sulfathiazole cases.

Rapid cures of gonorrhea in men with these drugs prompted the State and Territorial Health Officers 39th Annual Conference this month to recommend that selectees found to be infected be inducted promptly into service and treated.

Public health investigations in defense areas show that gonorrhea is found more often than any other venereal infection.

Public Health Service officials believe, however, that treatment of gonorrhea by drugs is so effective that the disease could be eliminated as a public health problem within several years if an adequate nation-wide program were developed.

Dr. R. A. Vonderlehr, Assistant Surgeon General of the Service, has urged provision of facilities to treat gonorrhea in all clinics, improvement of laboratory facilities for the culture of the gonorrhea germ and complete progress records in all clinics. He pointed out that 30 percent of the nation's public venereal disease clinics do not treat gonorrhea.

REPORT ON THE STUDY OF INFANT MORTALITY IN INDIANA FOR THE YEAR 1940

THIRD ANNUAL REPORT BY THE COMMITTEE FOR THE STUDY OF MATERNAL AND FETAL MORTALITY OF THE INDIANA STATE MEDICAL ASSOCIATION*†

Information submitted herewith was obtained from questionnaires through the cooperation of the attending physicians in the respective cases.

There were 61,915 live births and 2,580 neonatal deaths (under one year) in the State of Indiana during 1940—a fetal death rate of 41.6 per 1,000 live births.

Of these infants, 1,019 were white, 59 were Negroes, 1 was Japanese, 1 was Mexican, and 9 were unknown.

Syphilis was reported present in 16 of 825 mothers having had serologic examinations.

Statistical information obtained from analysis of the reports is presented for the most part in chart form.

All deaths were classified as to gestation into three groups—term, premature, and previable.

As in the reports for 1938 and 1939, causes of fetal death when reported were divided into three main groups as follows (in some cases no definite cause was found while in others more than one factor was given, therefore figures do not necessarily check):

1. Antepartum (diseases or conditions present before termination of the pregnancy)
   a. Extrinsic (outside influences)
   b. Intrinsic (diseases or conditions of the mother)
2. Intrapartum (occurrences during labor or delivery that contribute to fetal death)
3. Postpartum (diseases or congenital conditions of the infant contributing to neonatal death)

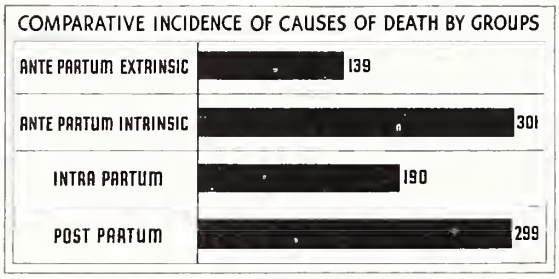
Carelessness, ignorance, and poverty were said to have contributed toward death individually or collectively in 113 cases.

Malpresentation, including 58 breeches, was reported in 81 instances.

Three hundred ninety of the 1,089 babies died at home.

Pathological labor was reported 52 times.

Delivery was accomplished in 138 cases by forceps, section, version, high forceps operations.



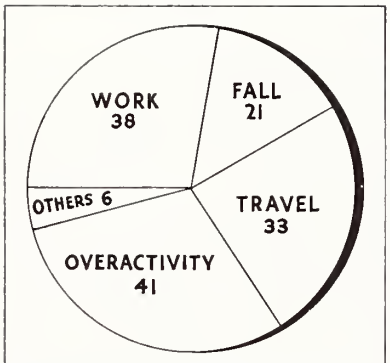
SUMMARY

The chief causes of neonatal mortality which are, in a measure, preventable, are shown to be premature birth, toxemic states of the mother, birth injury, and hemorrhagic disease of the newborn.

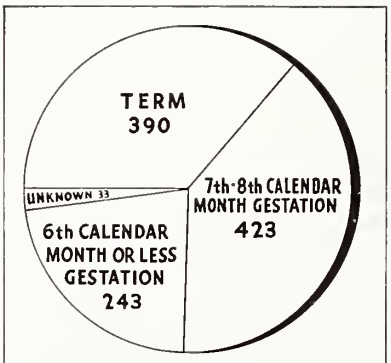
CONCLUSIONS

One may expect to reduce the fetal mortality rate by:

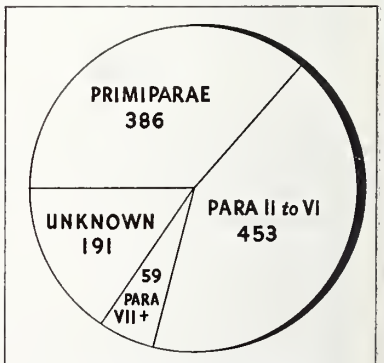
1. Education of mothers through prenatal instruction as to danger of precipitating premature



EXTRINSIC ANTEPARTUM CAUSES
TOTAL FETAL DEATHS-139

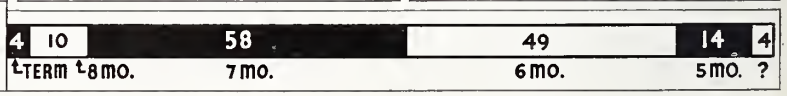


PERIODS OF GESTATION
TOTAL FETAL DEATHS - 1089



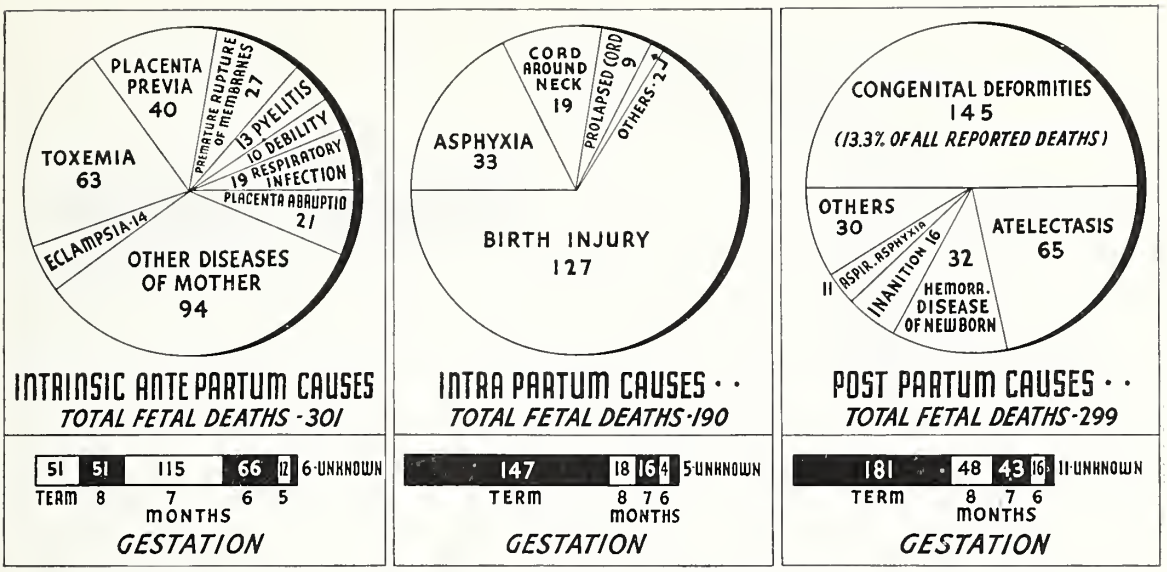
PARITY OF MOTHERS
TOTAL FETAL DEATHS-1089

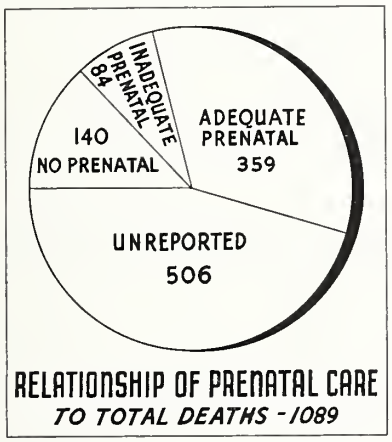
GESTATION IN EXTRINSIC ANTEPARTUM DEATHS



* This report was prepared with the cooperation of the Bureau of Maternal and Child Health and the Bureau of Vital Statistics of the Indiana State Board of Health.

† This article was prepared for the Committee by James H. Hawk, M.D., Indianapolis, Indiana.





labor by overwork, travel, and over-activity in general.

2. Prevention of toxemias of late pregnancy through prenatal observation and instruction.

3. Prevention of birth injuries by carefully planned intrapartum care.

4. Elimination of hemorrhagic disease of the newborn to a large degree by administration of vitamin K early in labor.

REPORT ON THE STUDY OF MATERNAL MORTALITY IN INDIANA FOR THE YEAR 1940

THIRD ANNUAL REPORT OF THE COMMITTEE FOR THE STUDY OF MATERNAL AND FETAL MORTALITY OF THE INDIANA STATE MEDICAL ASSOCIATION*†

Here, as in previous reports, statistical information published was obtained from questionnaires returned by practicing physicians who cared for patients dying of puerperal causes.

There were 156 maternal deaths and 61,915 live births in the state of Indiana during 1940—a maternal death rate of 2.5 per thousand live births.

Approximately 60% of the mothers were multiparae.

The incidence of lues was a little less than 3%. Three-fourths of these women died in hospitals.

Ruptured uterus accounted for two of the deaths —one, a gravida 9, had a spontaneous rupture, but the other occurred following the use of fractional doses of pituitrin in the first stage of labor.

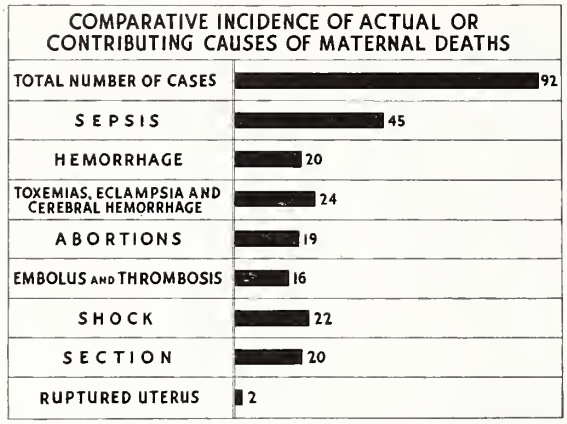
Ignorance, carelessness, and poverty, individually or collectively, were said to have been contributory factors in one-fourth of the reported cases.

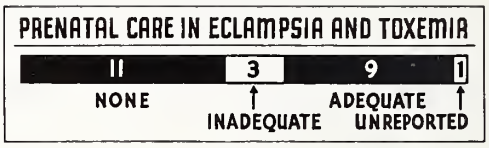
Analysis of the questionnaires revealed chief causes of death, contributory factors and their relationship to be as pictured in the charts and graphs which follow. In many instances the causes overlap, therefore figures do not necessarily balance.

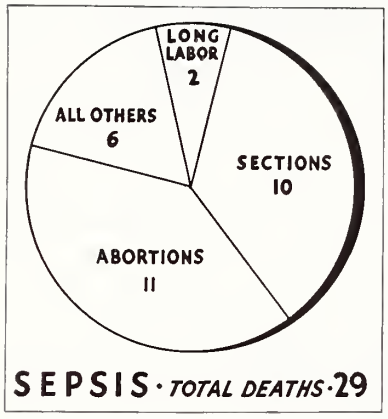
---

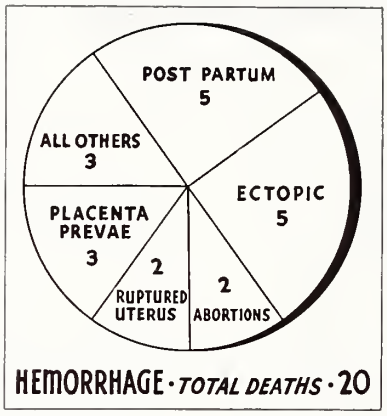
* This report was prepared with the cooperation of the Bureau of Maternal and Child Health and the Bureau of Vital Statistics of the Indiana State Board of Health.

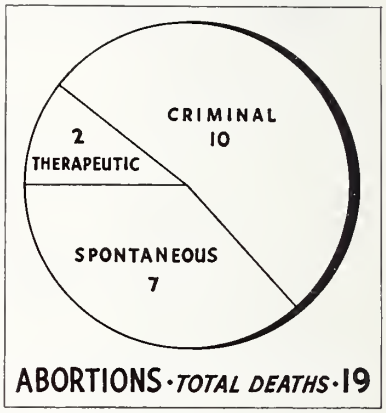
† This article was prepared for the Committee by James H. Hawk, M.D., Indianapolis.

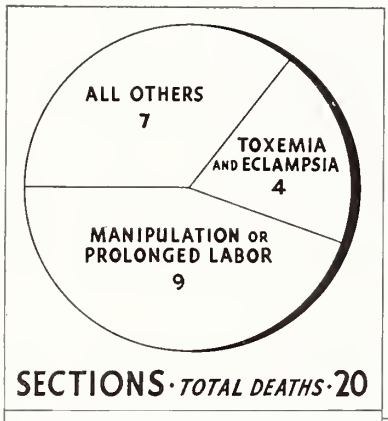


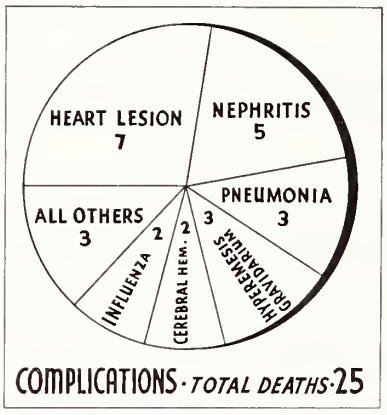


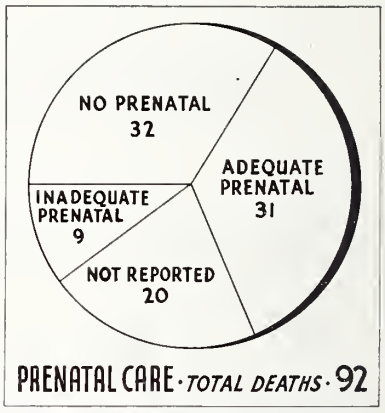












Summary: The chief causes of maternal deaths are: sepsis, toxemia and eclampsia, cesarean section, hemorrhage and abortion.

Conclusions: A survey of the charts reveals that the mortality rate may be reduced by:

1. Education of lay people as to the dangers of criminal abortions and the necessity of competent medical care at the time of spontaneous abortions.
2. Careful control of cesarean sections. When done, this operation should be definitely indicated and without uncontrollable contraindications.
3. Strict observance of asepsis and attention to the mother's general condition during a prolonged labor.
4. Available adequate means for control of postpartum hemorrhage.
5. Early recognition of ruptured ectopic pregnancy.
6. Hospitalization of suspected placenta previas.
7. Abstinence from giving oxytocics in the first stage of labor.
8. Adequate prenatal care.

ADEQUATE LABORATORY SERVICE TO SMALL HOSPITALS

B. W. RHAMY, M.D.
FORT WAYNE

Within the last two decades, clinical pathology has naturally grown into an increasingly important position in medical care, and the modern hospital laboratory is called upon to perform a great variety of clinical pathological procedures. In the large hospital this is amply provided for with suitable space and equipment, a full-time pathologist, and a corps of registered technicians. For the proper functioning of such a laboratory, the correct interpretation of the findings and the keeping of proper records, the pathologist is and should be directly responsible. Then, with the pathologist acting as consultant to the physician and by means of pathological conferences, fullest pathological service is rendered to both staff and patients.

The question of approximating this adequate laboratory service in small hospitals and communities has received considerable attention by the American Medical Association, the College of Surgeons, and by pathological societies during the last decade. Obviously, small hospitals cannot support a full-time pathologist, and the only alternative they have is to employ a technician. Sometimes even a full-time, registered technician is a financial burden, and a nurse who has had experience in laboratory and x-ray is employed. Unfortunately, under these conditions, the physicians using the hospital have no way to check on the ability of the technician, and the superintendent of the hospital who hires them, having no technical knowledge of laboratory work, can only depend on their credentials. Unfortunately, credentials are stereotyped misstatements in many cases, as the writer has learned by experience, for they read the same whether or not the technician is experienced and competent.

Aside from this very important angle, even if all hospitals were able financially to employ pathologists, there would not be enough pathologists to go around for the reason that, owing to the inadequate compensation in this highly specialized branch of medicine, young physicians are as a rule not attracted to this field. This lack of remunerative opportunities is in part largely due to the common practice of physicians sending laboratory specimens from pay patients to the state laboratory, where they are done free of charge. It is a sad commentary that, although the state specimen card specifies that "their work is confined to patients unable to pay," too often the cards are so signed, even though the patient is charged a fee for the service. This shows a lack of farsightedness in that, even though the profession generally is fighting against state medicine, yet for personal gain, these thoughtless physicians are, as shown by past experience, promoting and building up the state laboratory, providing an increased amount of work, and thereby furthering expansion. This is the very foundation of state medicine! In consequence of the inability of clinical pathologists to make a living in certain districts, the Federal government is now using this as an excuse to promote the building of federal laboratories in districts which have no clinical pathologists, thus directly advancing state medicine. Once started, these institutions can and do broaden their activities to other branches of medicine, as experience has shown.

To combat these malignant influences, the American Medical Association, the College of Surgeons and the pathological societies have instituted methods by which clinical pathologists and laboratories are approved, so that physicians may be sure of the dependability of reports received. To this end, in June, 1935, the American Society of Clinical Pathologists voluntarily took it upon themselves to ask that a system of voluntary approval for clinical pathologists be established so that the medical profession could know who did dependable work. In conjunction, therefore, with the Section of Pathology and Physiology of the American Medical Association, such a system was worked out and the final details of organization of such a system were adopted in July 1936. The purpose of this body was: to encourage the study and promote the practice of the science of pathology; to elevate the standards and advance the cause of pathology; to determine the competence of those practicing this specialty of medicine; to conduct, to investigate and to examine, to determine the qualifications of such individuals who voluntarily applied for such certificates of approval issued by this American Board of Pathology; to grant and issue certificates of approval in this highly specialized field of pathology, and to maintain a registry of holders of such certificates; and to serve the public, the medical profession, the hospitals and medical schools, by furnishing them lists of specialists in pathology who have been certified by the board. This board does not purport to interfere in any way or limit the private professional activities of any licensed physician. Rather, its chief aim is to standardize the qualifications for the specialty of pathology and to issue certificates to those who voluntarily apply and who comply with the requirements of the board by passing creditably their rigid examination. Briefly, the requirements are: Satisfactory moral and ethical standing; a license to practice medicine; membership in local, state and national medical societies, and that the applicant devotes his time primarily and principally to the practice of pathology. He must be a graduate of a recognized medical school, have completed a year's internship and then spent a period of study of not less than three calendar years in an institution or

pathologic department, studying clinical pathology and pathological anatomy; and, finally, a year's practice of clinical pathology—all this before he can apply for approval. Such an approved clinical pathologist can be depended upon by the profession not only to give good pathological service but, what is all important, to see to it that technicians working under him are also qualified to give satisfactory service for him.

One of the main obstacles in the road to building up a real pathological service in all parts of the country is the tendency, first, of young physicians toying with laboratory practice for neighboring doctors while building up their own practice in some other field of medicine, or of a physician hiring a technician to work in his office and do his private laboratory work, which he has a perfect right to do, but, when this office technician is aided and abetted to bid for and to do outside laboratory work which may affect the health of the community, then the technician is doing so without any pathological supervision whatever, and should be severely condemned.

The extreme culprit, from this point of view, is a technician who does not hold a medical degree, who opens up a laboratory of his or her own to examine pathological specimens in competition with regular physicians who have made pathology their life work. As the technician cannot avoid being asked frequently what the results mean, when he (or she) does give such an opinion, then he is practicing medicine without a license, just as surely as if he performed a surgical operation. In fact, this is unethical according to the technicians' own code of ethics.

Only by a system of laboratory approval as outlined above can these evils be remedied, and to do so, the approval system *must be supported and encouraged by the profession at large.* This in no way means that pathologists are trying to form a closed trust or combine, but rather they are aiming, in good faith, to promote and encourage young men to enter the field of pathology by creating fields in which they can work and make a living, and to best conserve the interests of the medical profession by combating state or federal medicine; and to encourage clinical pathologists to higher standards of excellence.

The council of Medical Education and Hospitals has for some years had a system of approval for large and small hospitals and in the larger hospitals approved pathologists devote their full time to the supervision and operation of the hospital laboratory. Hospitals with less than 100 beds, however, cannot afford, even if sufficient pathologists were available, to have a full-time pathologist, so the next best thing they can do to promote higher skill in diagnosis and treatment in the best interest of the hospital, the medical staff, and the community, is to have one or more technicians, under the supervision of the nearest approved pathologist. Here the technicians do the routine work, but the more complicated tests, called for at less frequent intervals and requiring special apparatus, need not necessarily be done at the hospital laboratory, but may be sent to the laboratory of their supervising or consulting pathologist.

It must be recognized that the technician, whether a trained nurse or a registered technician, cannot by her training have the broad knowledge of medicine essential to give correct interpretations of the findings in laboratory service. The ever widening application of special laboratory tests to medical diagnosis demands the skill and experience of those physicians especially trained in pathology to evaluate the results. How, then, may a small hospital have available this adequate laboratory service which is so essential to the proper care of the patients? The answer is that the nearest approved pathologist can be engaged to supervise and control the hospital laboratory, and it would be his duty to see that the technicians working therein do a satisfactory quality of work. The more complicated or rarely called for tests which, naturally, the small hospital laboratory would not be equipped to do, like tissue examination, serology, and blood chemistry, would be sent to the pathologist's own laboratory, to be done under his direct supervision, where his broad knowledge of pathology and its application to medical problems should never grow rusty. This has become the common practice all over the country and now many small hospitals that heretofore did not have the benefit of good laboratory service are having all their tissues diagnosed, their serology done, etc., so that, with other special procedures, the staff can do, if they take advantage of the opportunity, just as good work as is done in the large hospitals where there are full-time pathologists. Thus, an approved pathologist can, in his own laboratory service, have any number of small hospitals, provided they are near enough so that he can make regular visits for inspection and helpful supervision.

Financing the hospital laboratory is always a problem, particularly when the hospital looks upon the laboratory as a source of income instead of a medium whereby better scientific work can be done and better care and aid to the patients may be attained. However, in all fairness, suitable methods have been suggested to regulate the laboratory income:

1. To charge patients at regular laboratory rates, added to the bill. If the patient cannot pay full prices, laboratory fees are cut in the same proportion as other fees.

2. A flat laboratory fee of $3.00 may be charged every patient entering the hospital, and then the laboratory does the routine laboratory work done on most patients. Special tests are paid for extra. This method is often abused by ordering unnecessary work.

3. Another method is adding a per diem rate of 50 cents to the price of each room occupied. In this way, the patient is not confronted by a laboratory service bill. In case a patient has need for

very little laboratory work, this works an injustice on some.

In the case of the new pre-natal and pre-marital blood tests, it is the considered opinion of the writer that in all cases possible, and with few exceptions, these bloods taken in the hospital laboratory or received by the hospital should be sent to that of the supervising pathologist where they can be done under his direct supervision. The State Board of Health, at the suggestion of the State Pathological Society has also instituted a system of approval for pathologists doing these tests, so that the pathologist not only has national approval, but state approval as well.

The same reason given herein for encouraging and maintaining the high standard of laboratory efficiency for all laboratory procedures, applies particularly to these tests. It must be apparent, then, that the doctor who has a technician who wants to do these tests purely for personal and selfish motives is, whether intentional or not, acting against the best interest of that special branch of medicine, pathology, and therefore against the ultimate best interests of the medical profession, for when this system of approval is broken down, as it would be if the bars were thus let down to let this work be done by technicians who are not under supervision, then the whole system of laboratory control would be broken down with the result that state or social medicine would be advanced very materially, while dependable laboratory service would deteriorate.

ABSTRACTS

PNEUMONIA COMPLICATING OPERATIONS IS TREATED EFFECTIVELY

Infections of the respiratory tract complicating surgical operations or severe injury should be treated in the same manner as any acute lung infection, Lewis T. Stoneburner III, M.D., and Maxwell Finland, M.D., Boston, advise in *The Journal of the American Medical Association* for April 5.

Pointing out that the availability of highly potent specific remedies for the treatment of pneumonia, such as serums and sulfapyridine and sulfathiazole has resulted in a sharp drop in the death rate from this disease wherever such remedies have been used extensively, the two physicians declare that "it is probably fair to say that pneumonia occurring after surgical operations or after serious trauma (injury) is usually considered by both surgeons and laymen to be an unfortunate complication which often results in fatalities when the treatment of the primary condition is otherwise successful."

They report on their findings from 279 cases of pneumococcic pneumonia complicating surgical operations and 92 such cases occurring after serious injuries. In all instances the type of pneumonia was ascertained. Modern specific treatment was found by them to be as effective in pneumonia following injuries as in primary cases of the disease and also to be highly effective in cases following operations.

They advise that pneumococcus typing should be done and cultures of sputum or of material from the throat and blood cultures should be taken as soon as a diagnosis of pneumonia is suspected. Treatment with sulfapyridine and sulfathiazole should be instituted, under proper control, as soon as evidence of pneumonia appears. Specific antipneumonococcus serum may be given as soon as it is evident that the drug is not effective or is not properly tolerated.

DESCRIBES NEW DIVING APPARATUS FOR USE OF LIFEGUARDS

A diving apparatus for life saving work on beaches, which is an independent unit and which can be put on and be in operation in fifteen seconds or less, is described by Christian J. Lambertsen, Philadelphia, in *The Journal of the American Medical Association* for March 29.

"Frequent drownings occur in spite of apparently adequate patrolling of beaches and lakes by trained lifeguards," the author says, "A swimmer who, because of panic or exhaustion sinks beneath the surface of the water is usually quickly lost to sight. The task of the lifeguard is to swim down under water, holding his breath, in an attempt to locate the drowning person. Holding the breath while undergoing the exertion of swimming under water is extremely tiring. Rarely can an untrained person remain under water in this manner for more than one minute or dive deeper than about 30 feet. . . . Valuable time is wasted in coming to the surface for air, and time is an all-important factor in an emergency of this sort."

The apparatus described permits underwater breathing for from eighteen to twenty-five minutes in depths of water to 60 feet. Its foundation is a harness that fits persons of various sizes. It weighs but 12½ pounds and consists of an inhaler, breathing tubes, a soda lime container, rebreathing bags and a cylinder of oxygen.

Although it was originally designed for the rescue of drowning persons and for the recovery of bodies from deep water, it has such other uses, the author says, as inspecting damage to hulls of boats, minor underwater repairs, pearl and sponge fishing and sport, such as goggle fishing.

With slight modification it can be adapted for use in oxygen deficient atmospheres or in places containing noxious gases. Thus it could be used in mines, sewers, chemical plants and gas companies.

Annual Convention
Indiana State Medical Association
Indianapolis, September 23, 24, 25, 1941

CONGO RED—AN EFFECTIVE CHEMOTHERAPEUTIC AGENT

W. L. GREEN, M.D.
COLUMBUS

The use of a one per cent aqueous solution of Congo Red as a chemotherapeutic agent in the treatment of certain infectious diseases, especially those of the blood stream, was first reported in this country in October, 1937, in THE JOURNAL of the Indiana State Medical Association under the title, "Congo Red in the Treatment of Certain Infections—A Preliminary Report."[1]

Since that time continued clinical investigation of the therapeutic effects of the dye has yielded further evidence that it is beneficial in many cases. In no instance has its administration been followed by any untoward reactions and it is the purpose of this paper to point out the value of the drug and to review the many indications for its use.

Congo Red is the sodium salt of diphenyl-diazo binaththionic acid and is a red dye which has the formula $(C_6 H_4 N_2 C_{10} H_5 (NH_2) SO_2 ONa)_2$. It will be noted upon close study of the structural formula of this dye that it is related to many of the newer chemotherapeutic agents such as sulfanilamide, sulfapyridine, neo-pronstosil, etc., and differs in that the NH_2 group of these agents is replaced in Congo Red by an ONa.

Congo Red is most commonly known to members of the profession as a laboratory agent used in the titrations of acids and alkalies and it is for this reason, perhaps, that some men have been rather hesitant in using the dye as an agent to be placed directly into the blood stream. In our hands, however, it has been very effective in the treatment of many of the more common infections as well as some of the rarer ones including undulant fever and tularemia. It is an electro-negative dye and was first selected for use because of that property.

Toxicity of any chemotherapeutic agent is of course of prime importance and our investigations with Congo Red in animals have indicated that it is relatively non-toxic and carries a wide margin of safety. Results of experiments to determine lethal dosages have indicated that in most of the smaller animals, i. e., rats, rabbits, and cats, the amounts range from 250 to 300 mg. per kilogram of body weight.

These figures are slightly higher than those of Richardson and Dillon,[2] who have determined by careful study that the fatal dose of Congo Red in pigeons, rats, rabbits, and cats varies from 150 to 250 mg. per kilogram of body weight in over sixty per cent of their experimental animals.

In comparison with these figures it has been shown that the subcutaneous administration of the drugs sulfanilamide, sulfapyridine and sulfathiazole, which will cause death in about fifty per cent of mice, is approximately: sulfanilamide 2.3 Gm. per kilogram of body weight; sulfapyridine 0.8 Gm. per kilogram, and sulfathiazole 1.3 Gm. per kilogram.

With Congo Red it is our clinical practice to use 20 cc. of a one per cent aqueous solution as a unit of dosage. In experimental animals there is considerable variation in maximum tolerated doses but since these doses are always in excess of therapeutic needs it is logical to assume that the margin of safety between the therapeutic and toxic dosages in humans is very great. We have on occasion used as much as 80 cc. of a one per cent aqueous solution as a single dose with no demonstrable early or late toxic effects.

The side effects of the commoner sulfonamide derivatives are too well known for review here but it has been our experience that the renal damage, nausea and vomiting, blood cell changes of a very dangerous nature, and liver impairment are entirely absent with Congo Red. Death from overdosage in animals is believed to be caused by circulatory collapse as a result of direct cardiac depression but in no instance in humans have we seen any signs of lowering of blood pressure, pallor, sweating, etc., indicating circulatory failure or cardiac embarrassment.

At the time of the first report on clinical uses of Congo Red, made three years ago, cases of streptococci viridans septicemia, acute rheumatic fever, erysipelas, pueperal sepsis and low grade infectious arthritis were included. Further observations have borne out the correctness of our earlier report on these diseases and others, more especially pneumonia and peritonitis following ruptured appendicitis, have been added. In one case of cerebral meningitis the dye was injected directly into the spinal canal. The patient responded promptly and recovered.

In a recent study of all types of pneumonia (to be reported in detail in a later paper) fifty cases were treated exclusively by means of Congo Red in a one per cent solution and oxygen.[3] No other therapeutic measures were found necessary and in this series there was not a single death.

Inasmuch as one of our most constant observations with the dye has been a remarkable lowering of temperatures in nearly all types of infection, we instigated a study on cases of ruptured appendicitis with spreading peritonitis and high fever. So far twenty-five cases have been successfully treated with the dye and we now administer it routinely following surgery in these cases. An

[1] Green, W. L.: *Jour. Indiana State Med. Assoc.*, 30-527 (October, 1937).

[2] Richardson, A. P.-Dillon, R. J.: *American Journal of The Medical Sciences*, No. 1, vol. 198-73-94 (July, 1939).

[3] Storey, J.: Personal Communication.

initial dose of 20 cc. is given and repeated daily for four or five days if necessary.

Still another observation made in an earlier paper, namely, that the white blood cell count is increased by the intravenous administration of Congo Red, has been continually borne out in our clinical work. In this regard Richardson states that his investigations have shown that single and repeated doses of 25 mg. per kilo in animals have shown no blood changes but that intravenous injections of 50 to 100 mg. per kilo increased the white count 4,000 to 9,000 cells per c.mm. We reported increases of as much as 10,000 in humans.

Richardson finds further that the peak of the leukocytosis occurs in one to two hours following the administration of the dye and that it is marked by an absolute increase in the number of neutrophils.

Aside from its value in the treatment of infections, we have found Congo Red to be very useful as a hemostatic agent. The literature on this action has recently been reviewed by Taliaferro and Hagg[4] and striking results are claimed, although the exact nature of the phenomena has not been explained. It has been our experience that the addition of the dye to the blood stream materially shortens the bleeding and clotting times.

In a series of fifty cases, chiefly in children, Congo Red given in doses of 10 and 15 cc. prior to tonsillectomy, was found to affect the clotting time an average of 40 seconds. In some instances coagulation was increased by as much as two minutes. Bleeding and clotting times were checked thirty minutes following the administration of the dye. Some effect was found to persist as long as twelve hours later.

As a result of this study we have repeatedly used Congo Red in cases of nose-bleed and in post operative hemorrhage with very excellent clinical results. In experimental animals some investigators have been unable to confirm this property of the dye, but Graves,[5] Kickham and Wedekind, as well as many others, have reported the same success in the control of various types of bleeding in humans.

In our clinical work we have tried to determine some accurate dose for Congo Red but have been unable to arrive at any definite amount. The amount necessary to obtain results varies considerably with the individual case and no set dosage has been established. It is our practice to give the dye in 20 cc. doses and to repeat daily if necessary until the patient's skin shows a definite reddish tinge. We use this as a clinical sign that enough has been given. The patient is then given the dye in amounts sufficient to maintain the skin color.

Congo Red is eliminated rather rapidly from the blood stream, practically all traces disappearing within 24 to 48 hours, so we have had no hesitancy in giving repeated injections. It is eliminated from the body by way of the kidney and bowel.

One of the often voiced objections to the use of Congo Red is that it must be administered intravenously and, because of its dark red color, some difficulty is encountered in getting into the vein. It has been our experience, however, that this problem is of minor importance because even if the dye is infiltrated at the site of the injection it causes no ill effects other than a moderate amount of tenderness and a slight reddish discoloration of the skin which persists for several days and then gradually clears up. In no instance have we seen a slough develop.

In view of our continued success with the use of Congo Red it is our contention that a more widespread use of the dye is indicated. It is a very useful, relatively non-toxic chemotherapeutic agent that will often give results in cases where other agents such as sulfanilamide, sulfapyridine, neo-prontosil, sulfathiazole, etc., have failed or have proved to be too toxic for the patient.

In this regard it is well to note that Congo Red can be used following any of the above mentioned drugs in cases where toxic symptoms have developed with the assurance that none of the toxic manifestations will be increased in any way.

SUMMARY

1. Congo Red in a one per cent aqueous solution has definite chemotherapeutic value in many types of infection.

2. Congo Red is non-toxic in doses which far exceed those amounts necessary to obtain clinical results.

3. Congo Red has definite hemostatic properties in humans.

4. Congo Red can often be used successfully in cases where sulfanilamide, sulfapyridine and sulfathiazole have failed or proved too toxic.

[4] Tallaferro, I.-Hagg, H. B.: *American Journal of The Medical Sciences*, 193, 626-1937.

[5] Graves, R. C., Kickham, C. J. E.: *New England Journal of Medicine*, 214:782-783 (April, 1936).

This is the fifth of a series of articles on Indiana's "twelve great killers." In 1940 there were 2,082 deaths from pneumonia in Indiana. Next month the article will deal with Nephritis.

PNEUMONIA*

M. E. THOMAS, M.D.
J. DORMAN, M.D.
C. J. CLARK, M.D.
INDIANAPOLIS

Rapid strides have been made in the past five years in the control of pneumonia. These improvements have been the result of the availability of specific serum, the present facilities for typing, chemotherapeutic drugs, and early diagnosis. The willingness of the public to accept hospitalization for adequate treatment of pneumonia has undoubtedly been of great importance in reducing the mortality from this disease.

The early and complete diagnosis of pneumonia is of prime importance in its treatment. In about 90% of our cases the patients complain of a mild upper respiratory infection following a chill or definite chilly sensation. At this time, in the majority of the cases, the physical findings were a few scattered rales, diminished breath sounds and limitation of motion on the affected side. When these findings were encountered, a sputum was obtained for typing (Neufeld method) and a white blood count taken. When the proper diagnosis was obvious, x-rays were not obtained, but in those instances in which there was a question of the diagnosis, the extent of involvement or complications, the x-ray was used. (Table 1.)

From 1930 to 1938 the mortality rate from lobar pneumonia on the medical service at the Indianapolis City Hospital averaged 40%. Between July 1, 1940, and April 1, 1941, which represented one pneumonia season, 117 cases of lobar pneumonia were treated on the service. In this group there were 16 deaths (Tables 2 and 3), a mortality rate of 13.8%. Ten of these deaths occurred within 48 hours after admission.

This group of ten were cases which were moribund on admission, either by virtue of ignorance on the part of the patient or delayed institution of adequate therapy and hospitalization. We have felt that this group could not properly be accredited to modern pneumonia therapy. Deleting these deaths from this series reduced our mortality rate to 5.6%. Because our patients represented the most poorly nourished, clad, housed, and educated group in the State of Indiana, the mortality figure should be definitely lowered in private practice. Many of these patients were hospitalized much longer than would be necessary in private practice due to the inadequate opportunities for convalescence in the home. This marked reduction in the pneumonia mortality at the Indianapolis City Hospital has resulted from complete pneumonia therapy: namely, a combination of chemotherapy, serum therapy, and all widely recognized therapeutic measures.

The general plan of treatment included oxygen, sedation, soft diet, increased fluid intake, chemotherapy, serum, and adequate nursing care. All of these measures were instituted with the greatest speed possible as we felt that this was an important

TABLE 1—TOTAL PATIENTS RECOVERED 101

		88 uncomplicated cases	*13* complicated cases*
Age	Average	41.5	41.4
	Maximum	77	84
	Minimum	14	18
Sex	Male	46	6
	Female	42	7
Days ill before admission	Average	3.3	5
	Maximum	17	9
	Minimum	1	2
Lobes involved	Average	1.2	1.6
	Maximum	2	3
Number x-ray		38 or 43%	13 or 100%
Serum	Serum alone	0	0
	with chemotherapy	16	2
	Average dose	165,000 U.	200,000 U.
Chemotherapy	Chemotherapy alone	72	11
	With serum	16	2
Duration of drug (days)	Average	6.3	13.5
	Maximum	17	28
	Minimum	2	5
Average maximum concentration (mgm. %)	Average	7.3	5.4
Hospital febrile period in days	Average	2.8	19.7
	Maximum	15	68
	Minimum	1	1
Complications of drug	Nausea and vomiting	27	6
	Rash	7	1
	Hematuria	6	0
	Hemolytic anemia	2	1
	Drug fever	3	?
Duration of hospitalization in days	Average	13.8	33.4
	Maximum	60.0†	82
	Minimum	2.0	11

* 6 serous effusions, 4 delayed resolutions + 3 empyemas.

† 8 remained in hospital because of rheumatic fever.

* From the medical service of the Indianapolis City Hospital.

TABLE 2—DEATHS BEFORE 48 HOURS—10 CASES

Pt.	Age	Sex	Days ill	No. Lobes	Type	Serum	Chemotherapy	Hours In Hosp.	W.B.C. on Adm.	Remarks
C.H.	40	m	1	4	6	0	0	16	4,000	Subacute bacterial endocarditis diagnosed on previous admission
G.D.	45	f	21	1	8	100,000	Sulfapyridine	31	11,250	Bronchial asthma
V.S.	70	f	?	1	22	0	Sulfapyridine	14	22,000	Moribund on admission
H.P.	70	m	?	1	?	0	0	18	11,000	Pneumonia, found incidentally at postmortem with arteriosclerotic hear disease
W.M.	73	m	?	2	?	0	Sodium Sulfapyridine	4	23,900	In coma on admission
F.W.	70	m	9	1	3	200,000	—	16	4,200	Leukopenia
M.M.	72	m	14	1	8	0	Sulfapyridine	14	15,000	Found on floor unconscious after 2 days' absence
E.S.	39	m	2	1	2	0	Sulfapyridine	29	6,750	Bacteremia—typed from culture
M.C.	37	m	3	2	5	0	Sulfapyridine	14	34,000	Bacteremia and complete heart block typed from culture
C.R.	65	m	4	2	?	0	Sulfathiazole	44	14,300	Atelectasis of 2 additional lobes found at postmortem

factor in early recovery. In this series of cases two hours represented the average time between admission and the beginning of specific therapy.

Oxygen was given routinely for twenty-four hours and thereafter as the condition of the patient indicated. Morphine was the usual sedative and was ordered in small doses at frequent intervals. This procedure maintained a constant state of comfort rather than alternating periods of depression and restlessness. Likewise, a diet of 5 or 6 small feedings of easily digested food avoided distension and nausea and increased the caloric intake. Fluid administered at frequent intervals insured an intake of 3,500 cc. or an output of 2,000 cc. daily. If the patient failed to receive this amount of fluid, the deficiency was corrected by parenteral administration. Both sulfapyridine and sulfathiazole were used but no conclusions were reached concerning their individual merits. The dosage of sulfapyridine consisted of 2 grams immediately and was continued at one gram every four hours for at least three days after the temperature returned to normal. For sulfathiazole the initial dose was 4 grams followed by one gram every three to four hours. By this method the average maximum concentration for 114 cases proved to be 6.9 mgms per 100 cc. of blood. (Table 1.)*

The indications for serum administration were in general as follows: (1) patients over 50 years of age; (2) multilobar involvement; (3) extra pneumonic complications, such as pregnancy, diabetes mellitus, or heart disease; (4) bacteremia; (5) cases in which chemotherapy was contraindicated, e.g., drug toxicity and agranulocytosis and marked anemia; and, (6) poor response to chemotherapy. 100,000 units of type specific serum was commonly given as an initial dose. The patient's reaction to the serum given governed its additional use. (See Table 3.)

* Note: Determinations of blood level were made depending upon the drug used, but no effort was made here to give the individual average concentrations of the two drugs.

TABLE 3—DEATHS AFTER 48 HOURS—6 CASES

Pt.	Age	Sex	Days Ill Pre Adm.	No. Lobes	X-ray	Serum	Chemotherapy	W.B.C. on Adm.	No. days in Hosp.	Type	
L.S.	70	f	?	1	0	0	Sulfathiazole	27,500	11	9	Admitted in coma
W.F.	63	f	4	1	+	300,000	Sulfapyridine	25,000	7	1	Hemolytic anemia
J.D.	79	m	3	2	0	0	Sulfapyridine	17,000	4	?	Bilateral lobar
W.B.	57	m	3	1	0	100,000	0	1,078	5	2	Bacteremia and leokopenia
M.R.	58	m	7	2	+	180,000	Sulfapyridine	20,000	16	2	Probable polycythemia
J.B.	33	m	4	4	0	100,000	Sulfapyridine	21,500	3	1	Chronic alcoholism

In a number of cases which responded poorly to chemotherapy, the addition of serum proved to be an aid in recovery. It was for this reason that an attempt was made to type all sputum before chemotherapy was begun, since it has been noted that the pneumococcus becomes Neufeld negative after drug therapy has been instituted.

Bowel care resolved itself in the use of enemata. Conservation of the body temperature and transfusions were used freely in all cases indicated. All of the cases presented here were ward patients and did not have individual nurses; however, the nursing staff was constantly aware that these patients required special attention. It is true that chemotherapy and serum have greatly helped to reduce the morbidity and mortality of pneumonia but it should be remembered that these measures are an adjunct rather than a substitute for adequate nursing care.

The temperature response to therapy was the most reliable index of a favorable or unfavorable reaction. Daily changes in the physical findings were noted and careful observation of the skin made for the appearance of a rash. If the febrile period continued after 72 hours of therapy, it was considered advisable to x-ray the chest to eliminate complications as its cause. (See Table 1.) Frequent white blood counts, hemoglobin determinations and urinalyses, during the course of chemotherapy were made to avoid leukopenia, hemolytic anemia and hematuria. If crystals were seen in large quantities in the urine, the fluid intake was increased. Blood concentrations of the drug used were followed, particularly in those cases that exhibited a prolonged febrile period, evidence of kidney damage or signs of drug toxicity.

Since the advent of the use of the sulfonamide drugs, the complications seen differ from those which were most common a decade ago. (Table 1.) Intractable distention no longer represents such a serious problem. Jaundice in these cases more likely resulted from the therapy than from the disease. The infrequency of empyema represented a distinct achievement for present day therapy. Auricular fibrillation, formerly a "common worry," was rarely observed. These changes have been brought about by the marked shortening of the toxemia to which these patients were subjected and to the bacteriostatic action of the drug. On the other hand, the accumulation of serous fluid in the pleural cavities was more commonly encountered. These effusions were for the most part sterile but cultures were made since most of them containing bacteria became empyemas. The usual complications seen were produced by therapy rather than by the disease. These included nausea and vomiting, rash, hematuria, drug fever, granulocytopenia, hemolytic anemia, hepatitis, nephritis and uroliths. (See Table 1.)

SUMMARY

One hundred seventeen cases in one pneumonia season on the adult medical service at the Indianapolis City Hospital are reviewed. An attempt has been made to point out the importance of early diagnosis, laboratory procedures and the rapid institution of specific therapy. The efficacy of the use of serum and chemotherapy is stressed. It is important to continue chemotherapy sufficiently long to insure against recrudescences. Hospitalization, general procedures and good nursing care are of inestimable value in reducing morbidity and mortality. Changing complications and prognosis are important considerations in the proper management of this condition. Prevention of pneumonia by adequate management of early upper respiratory infections is important in reducing the incidence of this disease. Finally, a total "blitzkrieg" of pneumonia will result in the material reduction of both morbidity and mortality.

POSTGRADUATE COURSE IN OBSTETRICS TO BE HELD IN JULY

An announcement has been made of the next two-weeks Postgraduate Course in Obstetrics to be held at Indiana University School of Medicine from July 7 to 19, inclusive. This course will be under the full-time direction of Carl P. Huber, M.D., Associate Professor of Obstetrics, Indiana University School of Medicine. In addition, the regular staff members of the Department of Obstetrics, and the Departments of Pathology and Pediatrics will assist in conducting the course.

The course has been especially planned for the month of July, so as to be conducted during the summer months when physicians are usually not so busily engaged.

Applications for attending the July course should be sent at once either to Doctor Huber at the Coleman Hospital, Indianapolis, or to Doctor C. J. Clark, Chairman of the Committee on Postgraduate Education, Indiana University School of Medicine, Indianapolis.

The secretaries of the local county medical societies are asked to make this announcement an order of business at their next society meeting, and to encourage representatives from their areas to take advantage of this postgraduate work.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Mrs. J. S. Skobba, 1021 Hume-Mansur Building, Indianapolis

Editorial Board: Term Expires
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943

JUNE, 1941

Editorials

PNEUMOCOCCAL PNEUMONIA

With the advent of the newer methods of treating pneumonia, it has ceased to be the dreaded killer which we have known heretofore. The aged, the obese, and even the chronic invalids now have a good chance for recovery. The general mortality rate in well-treated cases has been reduced to 10% or less.

Serum therapy alone has given excellent results in certain types of pneumonia. These results compare very favorably with those obtained in sulfapyridine and sulfathiazole treated groups with the exception of those cases with bacteremia, in which chemotherapy gives a somewhat lower mortality. In this critical disease, the time element is of greatest importance and the therapeutic agent must be readily available. The sulfonamide drugs have distinct advantages over serum in this connection. Their administration is not difficult. This immediate availability of an effective therapy has given us an entirely new concept of pneumonia.

It is the consensus that the use of combined serum and drug therapy gives the most satisfactory results. Some investigators employ serum on the basis of the results of immunological tests. Others are using serum intramuscularly in all cases along with the sulfonamides. There are certain cases in which it is generally agreed that serum is always indicated. In the group of patients who exhibit marked intolerance to the drugs or fail to respond in a period of 24 to 36 hours, serum is urgently needed. It is felt that serum should also be used at once in the group of patients who have had the disease for 4 days or more, are over 40 years of age, have bacteremia, have involvement of more than one lobe, have evidence of septic complications or have associated diseases such as diabetes or heart disease.

The sulfonamide drugs are relatively inexpensive and are available everywhere. Their use in the treatment of pneumonia should be as early in the disease as possible. Early diagnosis is as important as ever. The employment of the chemotherapeutic agents has brought new problems in management. For most effective treatment, bacteriologic studies are needed. The results of the sputum and blood studies are of great help in diagnosis and prognosis, and may indicate the need of serum. Following the use of sulfapyridine or sulfathiazole there is usually a critical drop in temperature in 24 to 48 hours. Today the physician must observe the patient not only for evidence of spread of the disease, septic complications and the like, but for toxic manifestations of the drug as well. The skin may become bluish or icteric, or dermatitis may develop. The urine must be watched closely for hematuria which is sometimes the forerunner of renal colic or complete anuria. If therapy is prolonged, blood counts must be done at frequent intervals to detect possible disturbances in the blood forming organs. In the event that severe toxic reactions appear, the drug must be discontinued at once. It is now apparent that, in general, the danger of serious toxic reactions increases with prolonged use of the drugs. Most investigators believe that sulfathiazole is less toxic than sulfapyridine and, at present, it is the drug of choice.

The efficacy of the new therapeutic agents has been proven. To use them so as to obtain a maximum benefit in the reduction of mortality and morbidity in pneumonia is a challenge to every physician. Through constant application and effort to make earlier diagnoses and improve the technique of management, we may rightfully expect further important reductions in mortality.

THE GRAND OLD MAN OF INDIANA MEDICINE

The history of Indiana Medicine is a long and highly honorable record. Throughout the one and a quarter centuries of our existence as one of the United States of America, we of the medical profession have kept in step with the progress that has been made through the years and have been attuned to the kaleidoscopic changes witnessed in the past few decades.

In order to maintain such a record, Medicine has required leaders, men of vision, men who have been able to sense coming changes, men who not only have kept abreast of medical progress but also have had keenness of perception.

Indiana has been most fortunate in this regard; long is the line of those who have gone

before us, preparing the way we now are treading. And in this line of notable men of Medicine, none has so ingratiated himself into the hearts and into the memories of those of us left to carry on as William Niles Wishard, the "Grand Old Man of Indiana Medicine."

So it is that THE JOURNAL joins with Indiana Medicine in commemorating the memory of this great and good man; so it is that we dedicate this number to Doctor Wishard. It is his due that a permanent record be made of his unflagging interest in his profession, his indefatigable efforts to bring about those things that tend to further the interests of the profession to which his whole life was so unselfishly devoted.

Remembering the modesty of the man, we realize that were he here to survey the compilation that has been made in order to complete this record, his admonishment would be, "Now, Doctor, don't you think this is a bit over done!"

In this presentation we offer comment from his friends, his former students and associates, from those with whom he was associated in his devotion to the Church, and from his immediate family. When the word went out that THE JOURNAL was planning a memorial number for this former member, we literally were swamped with suggestions and with proffers of material, and from it all we have chosen what we believe represents a cross-section of an unusually busy life.

We trust that at some time and at some place there may be collected the papers, the scrap books and the many notations this man has set down through the years, all relating to our profession; truly such a compilation represents a history of Indiana Medicine through some three quarters of a century.

In his later years, in many conversations with Dr. Wishard, he suggested that "if ever he found the time" he would like to write, in narrative form, his many experiences in the medical profession, not forgetting some of his ventures into economic fields. We much regret this was not done as such a volume would have added materially to Indiana folk lore.

So it is that we consign this man to the vast expanse known as "memory"; no longer will we be able to take full advantage of his wise counsel, and on innumerable occasions we did just that, but in more than four decades of close association with this Grand Old Man of Indiana Medicine we have learned many things that will stand us in good stead for years to come.

We thus record the work of a Man of Medicine and in the recording we honor not only his memory but the medical profession of the country.

DON'T FORGET THE ANNUAL CONVENTION
— INDIANAPOLIS —
SEPTEMBER 23, 24, 25, 1941

SELECTIVE SERVICE EXAMINATIONS

In any hastily conceived and rapidly carried out project of the magnitude of general conscription for military service, certain inadequacies of the machinery are prone to appear. That the accomplishments made to date should reflect more to the credit of the participants is perhaps obvious. The local examiner, an important participant, has too frequently found himself caught in the wake of a charitable act, damned for his alleged errors and receiving meager acknowledgment of his efforts.

Administrators of the Indiana Selective Service System have carried on their job in the face of regulatory restrictions too often ill-defined or distinctly ambiguous. They have needed and have received the services of Indiana physicians, and frequently they have tendered their grateful recognition.

The lay public has been prone to judge the results harshly; they are being led to believe that our men are soft and incapable of hardship, that our national standard of health has suffered tremendously since World War I, and furthermore, due to the discrepancy of results between the local examining boards and the induction centers, they tend to discredit the professional ability of the local doctor. So seriously has the public taken these examination results that more than one rejected conscript has found himself unable to secure industrial employment on his return home.

Increased information should be given the public so that they may better judge. They need to be informed that the Army of today requires a superior mental and physical specimen to that required in 1917, and they need further to be informed that rejection for military service need not disqualify any man for his usual job in his home surroundings.

As to the rejection of selectees at induction centers, certain statistics recently issued by Captain Glen Ward Lee, medical adviser to the Indiana Selective Service System, need wider distribution with appended explanatory notes.

From November 19, 1940, to April 19, 1941, Indiana induction centers received 14,193 selectees for examination. Rejections totaled 2,170 for a rate of 15.2% which is comparable to other states of the Fifth Corps area. The rejections may be classified as follows:

1.	Mental and Nervous disorders	18.96%
2.	Diseases of teeth and gums	15.75%
3.	Genitourinary disease	12.32%
4.	Eyes and vision	10.03%
5.	Musculo-skeletal	9.89%
6.	Ear, nose and throat	8.01%
7.	Hernia and abdominal organs	7.65%
8.	Cardiovascular	6.87%
9.	Feet	3.25%
10.	Lungs and chest	2.47%
11.	Skin defects	1.04%
12.	Height and weight	.95%
13.	Endocrine disorders	.67%
14.	Administrative*	1.04%
15.	Miscellaneous*	1.10%

In the above rejections, it should be emphasized that many factors operated other than differences of professional interpretation. Doctors cannot be expected to solve dental regulations which have confused more than the occasional dentist. The addition of dentists to local examining boards is welcome help. The high rate of rejection for psychiatric reasons calls attention to the emphasis on this phase of induction examination. On behalf of the local examiner, it must be said that the form he uses does not bring this special type of critical survey to the foreground. In regard to the genito-urinary disorders, it is no secret that acute infections have appeared subsequent to the local examination. It is noteworthy that those regulations well understood by the local examiner have resulted in a very low rate of rejection while those with contradictory interpretations have resulted in the major causes for rejection. It is inevitable that there be diverse interpretation of physical findings as medicine will never be an exact science.

We firmly believe that the local examiner is deserving of more credit for his voluntary patriotic service. That he is being irked by unwarranted criticism is not surprising. Though he has not yet arrived at the place of refusing his further services, it is easy to see how he might be provoked to this alternative.

* Under Administrative and Miscellaneous causes for rejection or deferment are included such causes as recent operation, recent injuries, or recent illness.

THE VALUE OF MEDICAL SOCIETY RECORDS

President-Elect Austin, in a brief talk before the last Secretaries' Conference, had something to say on the subject of preservation of the minutes of county medical society meetings. He was a bit wrought up over the matter. It seems that he had loaned much of this material to a former member of our Association, who was then engaged in writing a rather exhaustive history of Indiana Medicine. By some hook or crook, Dr. Austin never has been able to regain possession of this material, much of which is invaluable to the profession of the state at large and in particular to those in the neighborhood of Anderson.

We agree with Dr. Austin when he says that there is too much laxity in the filing of these records and we might go so far as to say that there is too much laxity in preparing the proper minutes. He cites the fact that some twenty-five years ago Indiana University undertook a medical survey of the state. He became interested and made an exhaustive study of available records for his county, but for the time was unable to locate any records prior to 1884.

By more or less of an accident, however, there was discovered a book of minutes of the organization of the society, in 1862, the records being rather complete to the 1884 period. It was this book which was loaned and lost, so it is little wonder that Dr. Austin continues to mourn its disappearance.

The writer suggests that even though the records of a county medical society, today, are incomplete, it is not too late to collect much information that will be of use in preparing such data. He suggests, among other things, that the older medical men of the community be contacted and that the tales they relate of the "early days" be recorded by a stenographer.

We feel rather keenly about the subject, since we, too, had a rather long service in county medical society work. We would pay a pretty premium for the "little green book" which contained the minutes of our local society over a period of several years, since its organization, in 1898. But that little book probably lost its life via the waste basket of some one who then was serving as secretary.

And we shoulder our due share of blame for not having recorded the many chats we have had through the years with some of our old-timers, stories that now would make interesting reading. And even now it is not too late to look up some of the older men and make a record of their remembrances.

A few months ago we were talking along these lines with some of our local men, including our Public Relations Counsel, at which time we directed their attention to the fact that a society as large as ours should have a historian—some chap, probably a younger man, who would interest himself in such an undertaking. Most counties in Indiana have an Old Settler's Association, some of which have maintained rather elaborate records over many years. And some of the groups have members who could give us valuable information about the physicians of the early days. Throughout Indiana there are countless copies of county histories, some of which were very much worth while, many of which were purely commercial. The latter were of the type in which "write-ups" were to be had for a price, the more you paid the longer and more elaborate was the story. These volumes, available for the most part at local libraries, contain much information about physicians.

We might cite the utter lack of knowledge of medical lore exhibited by the average younger man in such fast-growing communities as the Calumet region. St. Margaret's, the first hospital established in Lake county, is well over forty years old. It began its history in what was then a large house. Later, the first hospital building was erected and the house was moved to a point a block away, where it now stands, used for residence purposes. We would be willing to wager that not more than one-fourth of the present members of the hospital staff, though they pass this corner dozens of times each month, are aware that this was the home of our first hospital. And,

so far as we know, there is nothing in the records of our society to indicate that fact.

Some counties, like Madison and Sullivan, are fortunate in having one or more physicians who are interested in local medical history. Dr. Austin has for years devoted much time to this study, and in Sullivan Dr. James B. Maple not long ago wrote and published a history of Sullivan County Medicine.

We would strongly urge every medical society in Indiana immediately to set about getting together all available data as to the practice of the healing arts in their communities; every member will not be interested, every member will not take the time to read it, if published and presented to him, but we believe it is quite worth the effort to get this material together.

Editorial Notes

The intern staffs of most of our hospitals, as of July first, will be very much curtailed. Already several of our hospitals have become "short-handed," because of the resignations of interns that they might "join up." In one of our local hospitals, where for years we have had an intern staff of eight, we now have four—may have less than that number after the "new crop" is available. Life in the Army, plus the stipend of something like $250 per month, is quite an attraction for many of our young medics.

Dr. Albert Huffman, South Bend, is receiving merited appreciation of an unusual hobby, that of growing orchids. He grows them not for profit but because he likes to work with this exotic plant. It is said that he does not sell these flowers, even though there is a steady market for them and at a high price. We can understand Dr. Huffman in this; we grow flowers—just the common garden varieties—but we grow them because we like flowers, they are our pets and we like to walk out into the garden and look at them every day that they are in bloom. And we seldom cut a bloom from one of our prize plants!

"Industrial Medicine," our special number for April, made quite a hit. We have had comments from over the state to the effect that this was a very much worth while number, and from outside the state we have commendatory letters from several sources. The medical department of General Motors seemed especially pleased with our effort to present recent opinion concerning a rather new subject.

More than five per cent of Indiana's physicians are now engaged in Army service, with the promise from War Department officials that at least that many more will be called at a later date. It is no easy task for our Association officials to organize this work of seeing to it that industry and the civilian population are properly cared for. And yet there are those who would draft our medical students!

The Coleman hospital, one of the Indianapolis Medical Center group, plans to try out a new incubator which is said to cost about $25. The average incubator now used in our hosptals costs several hundred dollars and if this new contrivance will do the work, all hospitals will find it possible to have several of them available at all times. "Incubator babies," by the way, are much more common than is generally supposed and it is stated that these cases are greatly on the increase, so a reasonably priced incubator will be a boon for many of our hospitals.

Citizens of those counties in which "government projects" of great magnitude are being built have finally learned that the coming of these projects to their community makes the tax problem more acute. In Jefferson County, the site of the new proving grounds which occupy thousands of acres, it is said that the tax duplicate will be reduced ten per cent. This works a great hardship on a county whose taxable property never did assume huge proportions.

The campaign against medical quacks is carried on in several sections of the state. In Indianapolis "Chief Brown Eagle" was taken to the town lock-up, charged with illegal practice of the healing art. Seems that the "Chief" made most of his diagnoses by looking at the eyes of his patients. Newspaper reports of his arrest indicate that he was quite perturbed about it, while his wife was just plain mad. Up in Gary the law caught up with another offender, one "Dr. William Davis," whose correct name is said to be Fay Newell, an ex-hamburger artist. The local medical society assisted the Gary police in working up this case.

Despite the fact that the press has made frequent comments to the effect that the medical men serve on the various draft boards without pay, a large proportion of the public continues to believe that we are paid for these services. We are making a number of refractions in connection with Advisory Board work and find that practically every man so examined is of the opinion that we are being paid regular fees for the work. As two of them recently expressed it, "You doctors sure are reaping a harvest out of this thing!" Try as we would, we could not convince them that this work was voluntary and without price. Members of local boards say they have the same experience; it seems that some folk just can't get

it into their heads that anybody works for nothing, these days.

The Old Weather Man, or whoever it is that doles out the changes that come to us from time to time, seems to have gone awry this season. What with a balmy March, an April that was wholly unlike the fourth month of the year, May came upon us with her balmy smile, as much as to say, "Here I am, bringing you an early growing season." In common with thousands of others, we accepted her proffer in good faith and proceeded to lay out the summer garden and flower plots much earlier than usual. At this writing, however, we are filled with much regret at having so eagerly listened to the dulcet tones of Miss May. Came a north wind, with a bit of snow here and there in our section of the state, and a frost that nipped to varying degrees the buds and blossoms that had ventured forth a bit too early, probably due to our coaxing. Why, we even passed up the "signs of the moon" in our planning and planting, a thing we never have done since we learned their importance back in our Wild Cat days. Never again will we be misled in such a manner!

Reports for 1940, in the matter of the operation of the "marriage law" show that 1.6 percent of licensure applicants have a positive serology. While this is not a large percentage, yet it is of sufficient degree to prove the value of the law. We are not at all certain that the law is completely enforced, however, since evidence continues to filter in that minor violations are to be observed in certain sections of Indiana. However, the law is a step in the right direction and in due time strict enforcement will be had.

In about three months medical Indiana will be heading for the capital city, there to hold its annual convention. Pre-session indications are that this will be an outstanding meeting, both socially and scientifically. It is probable that hotel accommodations will be taxed to take care of the registrants, hence an *early* reservation is desirable. It seems that every year we note belated comers trooping into Association registration quarters, asking, "Where can I find a room?" Nothing like being forehanded! Assure yourself that you will have a place to rest your weary head—and said head will indeed be weary if one tries to keep up with all that is planned for this gathering.

Dr. Louis Schwartz, director of the office of dermatoses investigation of the United States Public Health Service, in a recent talk at Indianapolis, described two unusual conditions of the skin and hair resulting from exposure to certain chemicals used in the present hyper-active powder industry. Some of the employees in these plants develop a Florida sun-tan, and some show a marked tendency to become blondes. He states that the picrates have much to do with these transformations. Thus do we add another chapter to the ever-growing lists of industrial and occupational phenomena.

For some years past we have been quite interested in our State Conservation Department. Their carryings-on have been so diversified as to attract the attention of thousands of our Hoosier folk. Not the least of their activities is their reforestation program, and in this connection it is to be remembered that the Department grows millions of trees each year, both for their own use and that of other folk about the state. Now comes the information that many of these tree seeds heretofore have come from Norway and from the Balkan countries, and, of course, this source of supply is cut off for the present. However, we have an abiding faith in the abilities of our forestry division and feel that in a short time our own Indiana will be producing the needed seeds. Most everything grows in Indiana, you know.

Steel Facts, official organ of the American Iron and Steel Institute, states that the annual production of tin plated cans for food and beverages has passed the *twelve billion* mark. Many green vegetables and fruits, heretofore impossible to preserve in these containers, are now on the market, due to improved methods of making tin plate. This, together with the marked increase in the use of canned goods, accounts for this amazing increase in production. It is interesting to note from year to year the additions to the delicacies that come to us in tins, all ready for the table. One of the latest to come to our attention and one that will make a hit with many folk is "broiled, buttered mushrooms," quite worth trying one of these days.

Governor Lehman, of New York, has vetoed the "Quinn Bill," recently enacted by the legislature of that state. This was a particularly vicious bill, entitled "An act to amend the civil practice act, in relation to permitting disclosure by physicians and nurses of professional information in certain cases," which, of course, means that nurses and physicians would be permitted to disclose confidential information to state or local investigating committees. "Privileged communications" long has been recognized as a part of the "law of the land" and it is quite refreshing to learn that the governor of one of our great states exercised such good judgment in vetoing a bill that would prove to be a source of much trouble in the future. We have known of a good many committees, bent on fact-finding expeditions, that would gleefully welcome an opportunity to force medical men to depose in certain matters.

A recent phase of the "Bundles for Britain" movement has been called to our attention and it is our belief that the movement should be stopped at once. The idea is to collect the samples left by pharmaceutical detail men in physicians' offices and include them in the shipments for British Relief. This is an expensive and uncontrolled way of supplying pharmaceutical products. Samples are expensive to prepare; they are distributed for the use of the physician, and many such samples might be dangerous if used indiscriminately without the advice of a physician. It strikes us that it is distinctly unfair to accept samples from a detail man and then deliberately send them off to Britain, thereby effectually defeating the purpose of the manufacturer. In some instances it is reported that city and county medical societies have been asked to cooperate in this movement; it is our opinion that it should be refused. Most of the pharmaceutical manufacturers have donated supplies to the British Relief, and we see no reason why they should be cheated into donating pharmaceuticals not intended for that purpose.

From the Australian News and Information Bureau comes the information that the Australian Minister for the Army, Percy Spender, has announced that the Australian Central Medical Coordination Committee recommends that Australian Universities should shorten their medical courses. Mr. Spender says that Britain is asking that more doctors be sent to Britain and to India immediately, but a review of the Australian position indicates that it is inadvisable to release doctors. He explained that 6,500 doctors were registered but excluding those over age, those working in essential services, those unfit and those on active services, there is now only one doctor for every 3,500 people. The present medical course in Australian universities is six years. Newspapers in the United States report that 500 young American physicians have volunteered through the American Red Cross for service in England with the British Red Cross. So far as we know, there has been no consideration of the ratio of physicians to population in this country after excluding "those over age," etc. We just expect all of our doctors to keep right at it, regardless of age or infirmities. About the only way a physician can really "retire" is to move far away from his home community and then keep his profession a secret in the new community he selects. What fun is there in that? So we keep right on.

The President's Page of the *Lake County Medical News* for April 1941, prepared by Dr. J. S. Niblick, is so worthwhile that we reprint it in full.

Not many weeks ago Westbrook Pegler gave some editorial advice to the American Federation of Labor regarding its complete failure in public relations. He suggested that Mr. Green and his public relations counsel should have torn a leaf out of the book of Ivy Lee, "who startled the world years back by advising the Rockefeller family to come clean and then square . . . a discovery in public relations that has been used with marvelous results ever since. His method was an open confession and a pious resolve, and the A. F. of L. can find no better formula."

There are many, many other examples of the success of this prescription in the cure of generally bad relations with the public. Among them, you'll remember the confessions, years ago, of major league baseball, with a "pious resolve" that resulted in the self-inflicted self-discipline generously applied by a paid employee—Judge Landis. Baseball has had good relations with the public ever since. Remember, too, the confessions of the motion picture industry. Czar Will Hayes was drafted, and there was a real-life happy ending to the public relations difficulties of the movie moguls. And there are actually hundreds of other examples of improved public relations and resultant security and profit for Big Business generally from a simple application of Ivy Lee's "open confession and pious resolve."

It is interesting to note that many who have ignored this formula, and have applied hack-writing press-agentry to their increasingly bad relations with the public, have suffered far more than those who swallowed a full dose of the Ivy medicine, admitted their crimes, cleaned their own houses, and then took the public into their confidence.

In medicine, we've had great authors and lyric poets for our unsolicited, unpaid press-agents. The classics and the pulps are full of propaganda for the family doctor, the country doctor, the "men in white," etc., etc. The truth is that we're just men and women trying to be of service to our fellow travelers through life. The good, the better, and the bad are among us. We're human, and subject to the failings of humans. Our unsolicited press agents have painted us as gods, and, since we haven't been able to be (and never wanted to be) gods, our relations with the public aren't so good. We haven't been able to put on a show that justifies the advance publicity.

I'm for the Ivy cure for medicine: the open confession and pious resolve. Let's get off our well advertised pedestals, admit we're human, provide more and more guards against the human element in the practice of medicine, clean our own house, and then tell the public what we are: just honest men and women with a big job we're trying our best to do well. I think the public will like us better with the veneer scraped off. What do you think?

In Memoriam

WILLIAM NILES WISHARD, M.D.

1851 - 1941

Wm. N. Wishard

Wishard, The Man

TERRY M. TOWNSEND, M.D.*

NEW YORK, N.Y.

"His was the task and his the lordly gift
Our eyes, our hearts, but enthroned to uplift."

William Niles Wishard has departed this life. Departed? Yes, if the gleaming light of the morning dawn, the early grass and the flowering tree, if the morning matins of the songbird have departed from the world. We can no longer look at his stalwart form, nor gaze into his kindly, quizzical eyes, nor enjoy the cordial grasp of his hand, but the essence of his greatness remains. He realized that his knowledge and his life belonged to his race and that the gifts he had from God were held in trusteeship for distribution to mankind. His unfaltering reliance on truth, virtue, and God enabled him to see the right, choose the right, and follow the right with invincible resolution.

Wishard had hope and courage to a high degree. Courage to combat life and courage to advance along dark scientific paths. This hope and courage came from his soul; he borrowed no courage from the mass; he based his hope on the verities. He beckoned, aided, and assisted us to climb toward the glowing heights, whose summits he attained, and thereby lay a better warp and woof for this world in which we live.

If one could choose a period in the past century in which to live, what better decades could have been selected than Wishard's life span from 1860 to 1940? This was an era of great scientific advance, of moral and civic regeneration, and of the passing of the teachings of hell-fire punishments in religion. Although the sorrows and tragedies of that era were great, those of this time are greater. Fortunate indeed are those who are not obliged to contemplate the horrors of the present.

Wishard's character cannot be evaluated now. No human mind can measure the beauty or grandeur of Mount Everest, the Pyramids, or the Taj Mahal by a view from their base. Distance, perspective, and light can only help us to appreciate their greatness. So with Wishard. He will be one of our symbols of the victory of immortality over mortality. In doing him homage we elevate ourselves. Those who were only acquainted with Wishard respected him; those who came in close touch admired and respected him; those who knew him well loved and revered him.

* Terry Townsend is a past president of the New York State Medical Society. He was an Indiana boy, and for one or two years he studied with Dr. Wishard.

Intimate Glimpses

ELIZABETH M. WISHARD*

While there is much that one could write, there is more one feels in attempting to choose what could be told about the more intimate phases of a life so fully lived as was that of my brother. Of his professional and public activities others have spoken and written, but to pull aside the curtain and glance into the life he lived among those who knew and loved him best, and tell of his devotion and faithfulness to all who had first claim upon his affections and solicitude is not so easy and stirs profound emotions. It is with the man he was, and the place he will always hold in memory, that I wish to deal in these brief references, and the tribute I wish to pay to the life he lived hidden from the world.

His early youth and boyhood days were spent on a farm and in a village where his daily companions in work and play were his brothers. They lived in the open and contributed their share to the household duties, and were faithful in the discharge of family "chores," which were then a part of every boy's life. They fed the horses, milked the cows, cared for the yard, cut and stacked wood for winter fires, plowed the vegetable garden in the spring and later sowed the seed. In the cold winter days they helped to cut the ice which for keeping was then carefully packed in copious beds of sawdust. When the hot days came they were ready to turn the freezer that yielded the refreshing ice cream; nor were they ashamed to help mother in the kitchen when their services were needed there. Some have smiled incredulously when I have repeated the incidents that in later years mother recounted of Will's cooking and how he became quite proficient in the making of pies and biscuits.

It was a wholesome, homey atmosphere in which the three brothers grew up, with plenty of fun and frolic to add spice and variety to the tedium of work and school. Boyish pranks may have

* Sister of Dr. William N. Wishard.

sometimes created embarrassing situations, but never deterred them from having a fling along some other line when the opportunity came. In the early days of the old Southport home, most families depended upon the ample rain barrel to supply soft water for the laundry and other domestic uses; such a barrel stood in the rear of the home of my parents, always filled from tin gutters that edged certain sides of the roof, and the water was thus drained to the pipe which carried it to the barrel. One evening mother went with father for a professional drive into the country. Will was the oldest and, as usual, was left in charge. When twilight began to vanish, the temptation for sport was too great to withstand and the boys organized a bucket brigade, chasing each other around the house, quickly filling the pails as they passed the rain barrel, each dousing the first fellow he encountered. An old friend appeared and, not finding anyone in the front, quietly walked around the house, unconscious of the liquid danger awaiting him. Thinking it was one of the other boys, George, who encountered the caller first, threw a full bucket of water over him before realizing it was not one of his brothers. The victim, Mr. Arch Glenn, grew up with several brothers and accepted the situation in good humor. In due time a cistern took the place of the tempting rain barrel.

Will's closest boyhood friend in Southport was a fine fellow but he was shy to the extent that he suffered acute embarrassment when in the presence of girls. One evening Will went secretly to mother's closet and arrayed himself in clothing that disguised him as a girl. Watching his opportunity, when he knew the other boy would likely be on the village walk, he drew near in an effort to engage in conversation, speaking in terms of admiration to his friend, who unmistakably showed his annoyance. He asked the "girl" to desist which "she" refused to do until the young man had reached the gate of his home and Will revealed his identity to the amusement of all. In due time the young man overcame his timidity and survived his third wife. In all the boyish mischief, Will was not a silent observer but an active participant, lending his full share to all the fun that enlivened the daily routine.

My brother's choice of medicine was due to heredity and environment. Father's immediate ancestors were tillers of the soil, rather than professional men, for they pioneered in the wildernesses of Pennsylvania, Kentucky and Indiana; but their Scottish forebears were men who chose the professions that were then common across the sea.

It was in a medical atmosphere that Will was reared, which in a small town meant having the doctor's office adjoin the house in the same yard. The patients who came to the office became personal friends of the family, often accepting hospitality which more than offset the small fees charged while waiting for the doctor's return from long drives. Dispensing the social obligations thus entailed was no easy task for the homemaker, who provided a long table where extra chairs could be quickly placed for the unexpected guests.

Serious consideration of medicine as a profession came after Will returned from Wabash College when illness had left him depleted in strength. In order to aid Will's recuperation, father advised that Will drive with him much of the time, for the country afforded opportunity not only for fresh air, but also for observation and conversation that led along professional lines. He thus gained what Dr. Richard C. Cabot styles "training that counts for something." Continuing, Dr. Cabot writes, "Prolonged daily, intimate contact with teachers or medical chiefs whose character has a clear outline and a strong color may influence a medical student for life. And such contact is not impossible in medical training now that the bad old custom of teaching by lectures is being supplanted by better methods. One learns medicine as one learns philosophy, carpentry or bookkeeping, in two ways: By practicing it and by imitation of good models."

The tie between father and son, early established professionally as well as by nature, deepened with the passing of the years. A pastor once remarked, "How well your father retains the confidence and comradeship of his sons."

After Will's superintendency of the Indianapolis City Hospital ended and he had engaged in private practice for a short time, he decided to devote himself to the specialty which he had chosen, and which then was an untried field in Indiana. He discussed the question at length with father, submitting his reasons for the choice he had made. Father listened patiently to a full presentation of the question and rather laconically replied, "Well, my son, I hope you will be able to make a living."

Mother was his confidant in his youth as she continued to be to the end of her days, and as he developed in life he evinced many of her characteristics.

By nature this loved brother was a rare combination of strength, courage, and tenderness. I am grateful to Dr. J. Rilus Eastman for his gracious words and reference to the gentle qualities of my brother's personality when he wrote of him, "What a towering character he was, yet with his giant stature he is one of the gentlest memories of my life."

It has been wisely said, "Talent is of no use to the man who hasn't the courage to make use of it." That Will was not lacking in courage when he battled for the right in hospital administration, political life or the betterment of medical teaching and laws, others will testify.

With enthusiasm he entered into the spirit of all family holidays, birthday celebrations, Thanksgiving and Christmas reunions, when his propensity for rhyming was brought into play. A

nephew was wont to say it was more fun to be present when the tree was trimmed and Uncle Doctor would write his verses than it was to see the tree on Christmas morn and receive the gifts. In former days trees usually were not decorated until Christmas Eve and then in as much secrecy as possible and displayed the next morning as a happy surprise to the children. Now they appear at the windows of many homes some days before. As packages were handed to Will he would scribble off some lines appropriate to the gift and the one for whom it was intended.

To the friends of his later years it may be news that he had a deep-seated love for music, cultivated to a limited degree in early days. The program of a concert given in Southport June 2, 1870, by the pupils of Miss Sarah Keeley, who made weekly visits from her home in Indianapolis, has survived the ravages of time. One number announced was an instrumental duet played on two pianos. Among the four given as performers is the name of Willie Wishard.

He always heartily joined in the home singing at evening prayers, and Sunday afternoons when father gathered the family about him for a Bible lesson, or the discussion he would give on the essentials of the Christian life.

True to the instincts of a boy, he was fond of pets, especially dogs, and one of the stories handed down is about the death of Hark, the first, a prized dog, and of the night Will sat up until morning, aided by his sympathetic mother, who did all she could to save the life of her boy's favorite. As mother expressed it, the rear yard at Southport became the burial ground for small animals and firearms; she would salvage the latter after the boys were asleep, not wishing to have their lives endangered.

Will was a somewhat prolific correspondent, at times dictating letters that were almost voluminous in size, but his heart-felt desire was to keep in close touch with his own and other kindred. To absent members of the family he would tell of his daily doings, the celebration of anniversary days, recalling experiences of the past dear and familiar to those to whom he was writing, always breathing a note of affection for those to whom he was writing, as well as filling his letters with a warmth of expression and concern for their welfare and happiness. Welcome as these letters were when received, some of them have become treasured possessions. He had a passion for accuracy in whatever his pen produced, especially that which went to the printer.

I have seen him reveal the shyness of a timid girl when a compliment was bestowed upon him, despite his wonderful self-control under situations that were sometimes difficult to meet.

He drew unto himself the affection and trust of many young men who were students of medicine, internes and office associates, who felt they had found not only a faithful friend and adviser but one who cherished their personal and professional interests. He had a capacity for friendship which was enduring, and he took time to give expression to his interest in those he claimed as friends. He possessed a loving, understanding and sympathetic heart. His well-balanced judgment and keen foresight made him a safe and valued counselor to many. He was fair and patient in discussion, but always held tenaciously to what he felt was honest and just.

His impaired hearing in later years made it difficult at times for him to engage in general conversation, which was a deep regret to him, but he accepted that limitation as he did all the dis-

DOCTOR WISHARD—*from original etching by Paul Shideler, made in 1925.*

appointments of life with calmness and forbearance, unruffled in spirit and manner. Compensations came to him in other ways, and once in referring to what he missed by his deafness, he suavely remarked, "Oh! well, there is much that is not worth listening to."

Any allusion to my brother's life would be incomplete without reference to his deep attachment for the church of his fathers. He was not only fore-ordained to membership in it, but ordained as a ruling elder, serving first in the Seventh Presbyterian Church and later the First Presbyterian Church, both of Indianapolis, covering a period of more than forty-two years. In his early church activities he was a Sunday School Superintendent and worker in the Society of Christian Endeavor. With zealous and ardent fidelity he held firmly to the true essentials of life. "And his hands were steady until the going down of the Sun."

While the lonely pathway lies ahead for some of us, he had reached the fullness of years, and what has been aptly termed Paul's swan song sums up the climax of his well-rounded life: "I have fought a good fight, I have finished my course, I have kept the faith."

The Professional Activities of William Niles Wishard*

WILLIAM NILES WISHARD, JR., M.D.
INDIANAPOLIS

William Niles Wishard was the fifth child of William Henry Wishard and Harriet Moreland Wishard. At the time of his birth, October 10th, 1851, his father was practicing medicine at Greenwood, Johnson County, Indiana, where he had studied under the tutorage of Dr. Benjamin Noble, a brother of one of Indiana's early executives, Governor Noah Noble.

As a small child my father attended the schools in Greenwood and later in the country where his parents had removed to a farm in Johnson County, not far from Glenn's Valley. Here, as a lad, he lived through that history-making period of this country, the Civil War. My grandfather, Dr. William Henry Wishard, served at the front as physician and surgeon much of the time during those eventful years, and soon after they ended, decided to settle at Southport, Marion County, where his children would have better educational advantages. It was in the high school of that hamlet that father received his preparation for Wabash College, having spent one year in school at Tecumseh, Michigan.

Before completing a full course in Wabash College, he entered the Indiana Medical College, graduating in 1874. After a year spent in practice with his father he went to Cincinnati, Ohio, and enrolled as a student in the Miami Medical College (now the University of Cincinnati), receiving his diploma at the commencement of 1876. He then entered general practice in Indianapolis and served as deputy coroner from 1876 to 1879, when he was appointed superintendent of the Indianapolis City Hospital, continuing in that position until January 1, 1887. The conditions and equipment he found at the hospital when he assumed the management would be considered appalling today. Only one brick building existed and it was so constructed that it could be devoted to administrative purposes only, with a few extra rooms on the third floor that could be used for patients in an emergency. The other buildings were old, temporary wooden barracks used by the government during the Civil War. They were not well constructed, were drafty, and were heated by stoves, and lighted by kerosene lamps suspended from the ceiling.

Under difficulties and drawbacks that would be outlawed by the profession and laity today, my father began his campaign looking toward the erection of buildings that would be more adequate and in keeping with the growing demands for the care of the needy and indigent who had no other source toward which they could look for relief and treatment.

The hospital was under the management of a board appointed by the City Council from its own members. Some of the strongest objections to the erection of new buildings came from members of the Council. The day my father assumed his duties as superintendent, there were thirty-one patients, a small number it is true, but more than the institution was equipped to care for properly. Despite the difficulties he encountered, three modern brick buildings, with the best equipment then used, were erected during the seven years of his administration.

When his term of service ended he returned to the practice of general medicine for a short time only. He had performed many autopsies while deputy coroner. As superintendent of the hospital a considerable portion of surgery, which then consisted largely of emergency work, dislocations, and amputations, fell to his lot. Abdominal surgery was opening up a new field, with an occasional

* Prepared at the request of the editor, and with the invaluable aid of my aunt, Miss Elizabeth Wishard, to whom the author is indebted for much of the material in this manuscript.

operation for stone in the bladder. Dr. L. H. Dunning was the first surgeon in Indiana to perform a nephrectomy, in 1887, while father performed the second one in 1889.

It was while conducting an autopsy upon a patient who had died from urinary retention in the early period of his hospital management that my father's eyes were opened to the relief which operation might have given the man. This led him to special study and investigation in urology, which he finally decided upon as his future field in medicine.*

Father's services as superintendent were marked by innovations other than the building program for it was due to his initiative, aided by the Flower Mission, that the second Training School for Nurses west of the Alleghenies was established in 1883 in connection with the City Hospital. Cook County Hospital had the first.

It was chiefly through the efforts of Dr. John Chambers, a distinguished member of the visiting staff, that the use of antiseptics was introduced in the treatment of wounds, not only in the hospital but among surgeons in Indianapolis. He first demonstrated the value of antiseptics when he amputated the leg of a patient at the hospital. Results were so amazing that antiseptics were quickly accepted by the profession.

Aside from his living quarters and board, father received a salary of fifty dollars per month, which within a year was increased to nine hundred dollars per annum.

In earlier years our favorite pastime was to climb up on father's knees (something of an undertaking for a youngster, considering their height from the floor) and beg for a story. One was always forthcoming, fresh from an apparently inexhaustible supply of delectables. In particular one sticks in memory, that of a colored prisoner ill at the City Hospital awaiting return to health and trial for murder. The patient had great difficulty in breathing at the crisis of his disease. Something acute caused a temporary cessation of respiration. Father happened on the ward at the time. There being no such thing as convenient oxygen tanks, he reached over and performed a mouth-to-mouth insufflation which resulted in returned respiration. The poor fellow recovered, was tried, and was executed.

Upon his retirement from the hospital, father's medical associates rendered him a complimentary dinner at the Denison Hotel and presented him with a microscope as a token of appreciation for his efforts to provide better hospital facilities for Indianapolis.

There is alive today only one person who knows the intimate details of those years at the City Hospital—my father's sister, Elizabeth, who served as bookkeeper during his term of office. Although he had a keen sense of humor, father was not given to frivolity and, I suspect, did not know all the details of nonprofessional happenings which occurred. We hear today of occasional pranks on the part of the house staff. These stunts are not new but take precedent from antiquity. This is not the time nor the place for levity, but I cannot refrain from mentioning a prank played on Aunt Elizabeth. One evening when she retired, on pulling back the bed spread, she found the sheets smeared with slices of cantaloupe. I do not doubt her ability to deal with the culprit who later became one of our best loved surgeons.

After deciding to become a genito-urinary surgeon, father went to New York for definite study along that line, doing post graduate work in the Polyclinic and the New York Post Graduate Medical School. He became a private student under Dr. Eugene Fuller and Dr. F. R. Sturgis. Later, he attended the Polyclinic in Chicago.

He made his first trip abroad in 1890 when he went to Berlin to attend the International Medical Congress and where for the first time he saw the cystoscope used. An announcement was made that Nitze, the originator of our modern cystoscope, would give a public demonstration of its use on the following day. So little was the importance of this appreciated that my father found himself one of a trio who had the interest to attend the demonstration. He visited several noted medical centers and made subsequent trips to Europe for observation and investigation.

Among his original developments may be mentioned a modified Kelly cystoscope with a lamp tip and removable window at the proximal end for inspection of a female bladder. He also developed an original trochar method of prolonged suprapubic drainage.

While visiting with father once at the Cleveland Clinic, I heard a remark of Dr. William E. Lower to the effect that "If Dr. Wishard had never done anything but design the catheter which bore his name it would be enough to secure him lasting recognition." The best known of these is the soft nose, hollow tipped, soft rubber catheter which is still one of the most widely used today. This was made by Eynard of Paris after a personal trip father made to the manufacturer. Under similar circumstances came the development of the silk-elbowed, flat prostatic catheter and the elbowed

---

* The following letter was received from Dr. Simon Steelsmith of Abilene, Kansas, on May 12, 1941:

"I was an intern in the old City Hospital from June 1, 1880, to June 1, 1881. Dr. John Oliver was the other intern during my internship. I believe it was the late part of 1880 when a patient came under my care with retention of urine. I catheterized him and was surprised at the large amount of urine, also at the fact that a hemorrhage followed. I called Dr. Wishard's attention to the case. He seemingly became unusually interested in the case, and held a post mortem in about a week. I don't remember what was found but there was something that interested him greatly. From the remarks the Doctor often made concerning the old gentleman in the bed in the northeast corner of the Middle Ward, with retention of urine, I know this to be the beginning of his interest in genitourinary work."

ureteral catheter. The latter apparently has never been widely used but those who have used it recognize it as an invaluable adjunct in the catheterization of a partially obstructed ureter. A recent letter from Dr. Grayson Carroll of St. Louis says that "It has proved helpful in many instances in executing passage beyond ureteral obstruction."

The present European holocaust brought to father its personal note of sadness in the cessation (for the duration at least) of activity of the house of Eynard, which he always regarded as a leader in its field. During World War I he unsuccessfully attempted to interest American rubber companies in the production of good catheters. He was encouraged and happy to note during the latter months of his life the improved domestic catheters of A.C.M.I., Bards, and others. It is of local interest to know that Col. Armstrong of Indianapolis first made father's catheters commercially available in this country.

In Volume I of the History of Urology (1933) recognition is made that father was the first to use the cautery on the prostate with the operative area under visual observation (1890). In 1900 he developed an air dilating cystoscope with adjustable cautery blade and visualization of the operative area. Mechanical defects caused him to abandon this instrument in favor of a better one designed by Goldschmidt. A perineal prostatic incisor embodying the above principles was presented at the Atlantic City meeting of the American Association of Genito-Urinary Surgeons in 1902.

In May 1890 he removed a portion of the prostate incidental to a combined perineal and suprapubic prostatectomy, and in June 1891 through a median perineal incision. On October 28, 1891, by the latter route he did a complete prostatectomy, an operation repeated over five hundred times with satisfactory results. In 1913 he adhered to the suprapubic approach, which he continued the rest of his life. His articles in the March and December 1892 issues of the *Journal of Cutaneous and Genito-Urinary Diseases* probably entitle him to priority in the operation of median perineal prostatectomy.

In spite of all the foregoing, my own observation of his technical skill dates back to childhood when he would demonstrate to my brother and me his marvelous ability to make a coin disappear in the nostril only to be recovered from the external auditory canal, an accomplishment not always approved by my mother, but which perhaps stood him in good stead in developing technique for the removal of foreign bodies from the bladder!

Father's teaching experience began in 1883, when he was appointed assistant to the chair of General Medicine in the Medical College of Indiana. When a new department was organized in 1887, that of Genito-Urinary Surgery, he was honored with the designation of professor and placed at the head of this division, a position he held continuously for forty-nine years, until his resignation in 1936.

One of father's most strenuous efforts in the days of his greatest activity was devoted to the enactment of medical laws. He was the author of the Medical Practice Act in Indiana, passed by the State Legislature in 1897, which, with a few minor changes, is in force today. That law created the Board of Medical Registration and Examination. So skillfully was the formation of the law carried to a logical conclusion that the socalled branches of medicine, known as eclectics, homeopaths and other irregulars, were absorbed through contact and education and their graduation reached the dignity of doctors of medicine.

The fulfillment of a long cherished desire came when in 1922 the Bureau of Publicity was called into existence as a department of the Indiana State Medical Association. Father was made chairman at its organization and occupied that position until his death. Through the printed pages sent out weekly by the Bureau, valuable authoritative information is disseminated which affects the health of a countless number of citizens of the state who receive such data through the press and other public agencies.

An observance that brought joy and satisfaction to one whose years of endeavor were devoted to the uplift of his profession was the fortieth anniversary of father's graduation in medicine when, on February 28th, 1914, he entertained at dinner all able to come who had ever been associated with him as interns, students of medicine, and office associates. Dr. John H. Oliver, who had served as a City Hospital intern during father's administration and who succeeded him as superintendent in 1887, acted as toast master, and in his own inimitable way aroused the guests to a high point of levity. The dinner was repeated ten years later.

A public banquet was tendered to my father in recognition of his fifty years of practice June 13th, 1924, by the Indianapolis Medical Society in the Riley Room of the Claypool Hotel, when Steele's oil portrait of my father, which now hangs in the library of the Indiana University School of Medicine, was unveiled and presented by Dr. David Ross. Among those who responded to toasts on that occasion were Dr. Harvey Wiley, and Dr. Edward L. Keyes of New York who, like his father, has occupied an enviable position in medicine and urology.

Another recognition of rather extraordinary length of service in medical circles came on the sixtieth anniversary of father's graduation in medicine, February 28th, 1934, when the senior class of the Indiana University School of Medicine honored the occasion by a banquet, served at the Riley Hospital. It was a crowning event that gave him pleasure and humble gratification.

In 1890 he served as president of the Indianapolis Surgical Society, and in 1895, of the Mississippi Valley Medical Association. Both societies are now

defunct. The same recognition came to him in 1898 when he was elected president of the Indiana State Medical Association; and of the American Urological Association in 1905, serving as its second president. He was first vice-president of the American Medical Association in 1919 and was a member of the House of Delagtes of the American Medical Association, serving without interruption from 1902 until 1913. For many years he was an active member of the American Association of Genito-Urinary Surgeons and later was made an honorary member. He was also an honorary member of the Association Francaise D'Urologie. He became a charter member of the Columbia Club and of the Indiana Society of Pioneers, and he held membership in the Sons of the American Revolution. He became a member of the Contemporary Club within a year after its organization.

Father served as chairman of the Committee on Public Policy and Legislation of the Indiana State Medical Association from 1895 to 1922, when he was transferred to the chairmanship of the newly formed Bureau of Publicity. He became a member of the Indiana State Board of Health in 1900 and was president of the Board at the time of his resignation in 1911. In the February 1941 issue of the *Monthly Bulletin of the State Board of Health,* Dr. Thurman B. Rice bore strong testimony to the effective work he rendered in an administrative capacity, as well as through legislation he was instrumental in having enacted. From 1890 to 1892 father was Surgeon-General of the Governor's staff with the rank of Lieutenant Colonel.

He never resigned from practice, a fact which doubtless contributed to his longevity and happiness in spite of increasing deafness and failing vision. With the exception of illness he was at the office daily until seven days before the end. He maintained an active contact with professional matters by consultation and occasional treatment up to the close of his career. Actual surgical work was, of course, given up in the later years, though we are fortunate in having a movie of him doing a perineal section well after his eightieth birthday.

Aside from medical degrees won through study, honorary degrees were conferred on him as follows: A.M., Wabash College, 1890; LL.D., College of Wooster, Ohio, 1919; LL.D., Indiana University, 1924; Sc.D., DePauw University, 1928, and Sc.D., Hanover College, 1933.

In his youth, father became a member of the Presbyterian Church to which he gave his loyalty and service until the end of life. At one time he represented the Indianapolis Presbytery as commissioner to the General Assembly of the Church. He served as elder for about forty years.

On the day before his death he took great pleasure in reading and inspecting the diploma and license of Dr. Isaac Coe, the city's first physician. These documents had been presented to the Medical School by Miss Sickels but were left at the house for father's observation. Following his instructions on that day, they have been deposited in the Library of the Medical School for permanent keeping. There also is the book of portraits of all the past presidents of the Indianapolis Medical Society, together with biographical sketches of each, a work compiled by the Portrait Committee of the Indianapolis Medical Society of which father was chairman. He took an intense interest in this work and regarded it as his last contribution to Medicine. The report of this committee took the form of an illustrated address which he gave to the Society in May, 1940, covering the work of the committee.

Father's last public appearance was at the meeting of the Staff Society of the Indianapolis Methodist Hospital on December 5, 1940, at which time he introduced his old friend and student, Dr. Terry M. Townsend, retired president of the New York State Medical Society, who had come here from New York City to address the Staff Society.

In his response to the greetings extended to him by the senior class in 1934, he ended his remarks with this testimony: "May I add in closing that I have never recognized any lack of accord between science and religion. I cannot conceive of creation without a Creator. I believe with the apostle Paul, that 'the oppositions of science are falsely so-called.' God reveals Himself in the progress of medicine as elsewhere."

1711 North Capitol Avenue.

Our Professional Associate

HOMER G. HAMER, M.D.
HENRY O. MERTZ, M.D.
INDIANAPOLIS

Doctor William N. Wishard, our late senior associate was often called a patriarch. Becoming patriarchal occurs only with the passing of time. Being patriarchal carries with it the idea of having a loyal following, either family or tribe. No tribal chief in ancient times ever took greater pride in his band nor had more devoted cooperation from them than Doctor Wishard enjoyed through his associates, his various assistants and a great number of office students in the sixty-seven years he practiced medicine. On the occasions of the fortieth, fiftieth and sixtieth anniversaries of his graduation in medicine it was his great satisfaction to be joined by as many of his former students and associates* as could possibly attend. Such was their loyalty that many of them traveled hundreds of miles to congratulate him and be present at the formal dinner which marked each occasion. He kept in touch with all these men throughout his life, rejoicing in their happiness and sharing their sorrows and disappointments. When called upon, he gave liberally and unselfishly of his time. From a wealth of wisdom and experience he contributed generously to help them in times of anxiety and advised them in new undertakings. He was never too busy nor too tired to lend, in conference, an unhurried ear to the personal affairs of his students or associates, to lay out a plan for their children's education, or to outline the procedure for the welfare of any one of them or of their families. To be associated with him was a privilege. From the outset you knew he expected the best that was in you; his attitude compelled it. Always exact himself, he was never unduly critical.

In the management of office affairs, Doctor Wishard divided the responsibility of labors and was particular in giving credit for accomplishment. He had a deep sense of responsibility for the economic welfare of all who worked with him and kept watch over a proper division of earnings. For many years it was his ambition to have an office so organized that the conduct of professional work would be free from distractions and in close relation to the hospital, thus making possible attention to patients with the least expenditure of effort and time. This was accomplished in the establishment of our present office which was occupied in March, 1927.

To work with Doctor Wishard year in and year out meant to absorb, as far as one was capable of absorbing, his beliefs and ideals and to imitate his habits. He created and sustained a working atmosphere of respect and courtesy among his staff, always observing the proprieties in all things and never considering them trivial. He enjoyed paying to his coworkers the tribute they deserved. When one of the secretaries and the laboratory technician had reached their respective silver anniversaries in the organization, Doctor Wishard proposed in each instance that the occasion be recognized by a testimonal dinner with festive appointments, speeches and gifts.

He loved humanity and yet he saw through human beings as if they were transparent. He would talk with a person considerately even though his suspicions had been aroused, and in a few minutes he would shrewdly strip off the wrappings and get at fundamental facts. Bad luck for the person who presented himself with a weak place in his armor!

He was a great advocate of self discipline, relentless in adherence to the standard of ethical conduct set for himself and his associates, and would not countenance any relaxation toward professional ideals. His influence was far reaching as a formidable force against behavior he considered unworthy of the high calling of the medical profession. He was approached by outsiders upon more than one occasion in the matter of increasing fees to a level comparable to those in the larger cities. Once he was heard to answer "Gentlemen, the practice of medicine is not a commercial enterprise." Standards of medical practice had to be sky high. While he was a strong supporter of the highest ethical standards, he was inclined to be lenient in an effort to be fair toward an erring individual. He abhorred gossip and he took no part in cliques.

Dr. Wishard was a great believer in attendance at medical society meetings, local, national and international, and was always well informed on topics up for discussion. He urged his associates to maintain an active interest in medical society work, to attend meetings regularly, to read and discuss papers, to be ready to serve on committees and to aid in every way in promoting the interests of such organization. He was jealous of the dignity of a medical society as a strictly scientific body. Medical societies were a great inspiration to him, and he was an inspiration to them. The last time he attended a meeting of the American Urological Association, which was held in Toronto in 1932, he received the spontaneous tribute of a standing ovation. He was so strict about attendance at scientific meetings that if they happened to interfere with social or vacation arrangements he counted it of small importance to give up outside

* A list of the names of these associates is published at the end of this paper.

things. If a meeting of any consequence to urology was going on anywhere, any time, one of us was expected to be there. It was always his desire that the Indianapolis Medical Society have a permanent meeting place, its own building, and he was keenly disappointed when the offer of the old Lomax home as a gift to the Society was rejected.

Great in intellectual endowment, in wisdom, in fertility of mind, in unselfishness and kindness, in humor, Doctor Wishard was an ideal leader. He was diplomatic but capable of intense directness. He was a positive and incisive thinker and speaker. He had imagination, daring, and an intuitive sense of strategy, but he had great patience when it was needed. He yielded to no hasty impulse. Like other great men in the history of medicine he never envied anyone or stood in the way of younger men. He often spoke of his advancing years and of the fact that he "had been born too long ago," but there was never a time in our association with him that his mind was not busily and enthusiastically engaged in plans for the future. It is not possible to convey the spirit that emanated from the man.

He had remarkable flexibility in accepting the new and discarding the old in all phases of his specialty. He was ever interested in new devices, he always bought the best the market afforded in instruments and other equipment, and was constantly seeking the means of better diagnosis. He was habitually economical in office management and kept a close watch upon even the small items of expense.

He had a quick and penetrating eye and he absorbed knowledge over a wide field with amazing ease and sagacity. He was possessed of great courage. A large man physically, he was large in ambition, standards, outlook, expectation and enthusiasm. His dignified bearing and kindly expression inspired confidence. His erectness of stature and stately bearing added to his dignity. No one ever took liberties of undue familiarity with him.

His attitude towards his patients was dignified but kindly. He had patience to listen to the recital of their symptoms and was always sympathetic. He would go into great detail in the matter of explanation of their troubles and in giving instructions for the management of treatment. On the other hand, he expected to have his directions followed to the letter. His feeling of responsibility for the individual patient never relaxed and he made each one know that he considered his problem important. While he cultivated the friendship and confidence of his patients, he raised a barrier against intimacy, and woe to him who tried to call him "Doc"!

He had a high sense of responsibility toward consultants in the matter of reports on referred patients. It was his constant effort to make prompt and full reports, sparing no pains to explain, considering that as consultant he was expected to assume the position of teacher to student, as related to specialized work with which the referring doctor could not be expected to be familiar.

He always made his associates and assistants feel that they were an essential part of the office organization.

He manifested a feeling of responsibility towards assistants who gave of their time and efforts, in that their future was in a measure entrusted to him, and that their developmental period was vital to their future.

He took great interest in the promotion of his specialty locally and nationally and encouraged his associates to do likewise. He aided them in acquiring proficiency and then helped them to secure membership in special societies.

In medical school work he was a driving force in that he exacted unswerving punctuality, careful preparation for lectures and clinics, and emphasized at all times a teacher's responsibility to the student body. These traits became more pronounced with the years and greatly endeared him to the medical students whether graduate or undergraduate.

We feel it a special privilege to have an opportunity to speak of the intimate contact that office association with Doctor Wishard afforded us; not that we knew him better or that the many qualities of his many faceted character were revealed to us more than to others of the large group of men who had preceded us, but we were with him longest and throughout that important period of his life when he was reaping the fruits of early foresightedness and planting new ones which will benefit us all.

We have lost our leader who was "wise in heart, mighty in strength."

The following physicians have served as office associates of Dr. Wishard, and were fondly called by him "his boys":

Dr. John Allen	Montrose, Colorado
Dr. Robert N. Bills	Gary, Ind.
Dr. John M. Blair	Houston, Texas
Dr. Frank P. Bohn	Newberry, Mich.
Dr. A. W. Brayton	Indianapolis, Ind.
Dr. A. M. Brenner	Winchester, Ind.
Dr. Donald E. Carter	Ft. Lauderdale, Fla.
Dr. F. R. Charlton	Indianapolis, Ind.
Dr. Elizabeth Conger	Indianapolis, Ind.
Dr. A. N. Daughters	Tiverton, R. I.
Dr. Oscar W. Davidson	Kansas City, Kansas
Dr. John B. Davis	Denver, Colorado
Dr. Merrill S. Davis	Marion, Ind.
Dr. W. T. S. Dodds	Indianapolis, Ind.
Dr. Theodore A. Dykhuizen	Frankfort, Ind.
Dr. L. J. L'Ecuyer	Greenleaf, Kansas
Dr. Stephen Egart	Indianapolis, Ind.
Dr. Henry M. Escue	Charleston, W. Va.
Dr. W. A. Ge mein	Sioux Falls, N D.
Dr. R. T. Gilchrist	Milwaukee, Wis
Dr. A. B. Graham	Indianapolis, Ind.
Dr. Owsley Grant	Louisville, Ky.
Dr. Earl Green	Muncie, Ind.
Dr. C. B. Gutelius	Indianapolis, Ind.
Dr. H. G. Hamer	Indianapolis, Ind.
Dr. Paul N. Ivins	Hamilton, Ohio
Dr. Wm. N. Jennings	Mt. Gilead, Ohio
Dr. A. C. Kimberlin	Indianapolis, Ind.
Dr. Cameron A. Leatherman	Muncie, Ind.

Dr. A. B. Lewis	Hamilton, Kansas
Dr. H. O. Mertz	Indianapolis, Ind.
Dr. E. B. Moffett	Berkeley, Calif.
Dr. Joseph E. Morrow	Indianapolis, Ind.
Dr. J. D. Moschelle	Indianapolis, Ind.
Dr. A. J. McCracken	Bellefontaine, Ohio
Dr. T. B. Noble	Indianapolis, Ind.
Dr. Arthur Oilar	Russiaville, Ind.
Dr. John Oliver	Indianapolis, Ind.
Dr. R. St. John Perry	Farmington, Minn.
Dr. Theodore Potter	Indianapolis, Ind.
Dr. Ralph Plough	Elwood, Ind.
Dr. Robt. C. Rauscher	Aberdeen, Md.
Dr. J. S. Robison	Winchester, Ind.
Dr. William Sigmund	Columbus, Ind.
Dr. Lyne Smith	Louisville, Ky.
Dr. Roy Lee Smith	Indianapolis, Ind.
Dr. James M. Stoddard	Beverly Hills, Calif.
Dr. Simon Steelsmith	Abilene, Kansas
Dr. Clyde H. Startzman	Bellefontaine, Ohio
Dr. Dan Thompson	Indianapolis, Ind.
Dr. F. F. Thompson	Los Angeles, Calif.
Dr. Wm. E. Tinney	Indianapolis, Ind.
Dr. Terry Townsend	New York City
Dr. Howard Turner	Providence, R. I.
Dr. Victor Varner	Evansville, Ind.
Dr. John M. Wallace	Lynn, Ind.
Dr. C. L. Wheeler	Lexington, Ky.
Dr. W. H. White	Amo, Ind.
Dr. E. E. Wishard	Indianapolis, Ind.
Dr. Fred B. Wishard	Anderson, Ind.
Dr. J. G. Wishard	Wooster, Ohio
Dr. William Niles Wishard	Indianapolis, Ind.
Dr. Clinton Zaring	Greencastle, Ind.

Dr. Wishard and the Indiana State Board of Health

THURMAN B. RICE, M.D.

INDIANAPOLIS

There is one phase of Dr. Wishard's life that is not at all well known at the present time, four or five decades after it actually happened—his connections with the Indiana State Board of Health.

We do not know when he first became interested in this subject, but we do know that it was he who offered the name of John Hurty to the Governor and the Board of Health as a suitable person for the secretaryship. In 1895 Dr. Charles Metcalf was Secretary of the Indiana State Board of Health. He was not well and was doing a very poor job. His term was up in 1895, but a successor could not be appointed because two of the members were Democrats and two were Republicans. The two Democrats voted for their partisan candidate, the two Republicans voted for their personal friends, and Metcalf voted for himself.

This situation went on for a year during which time Metcalf was holding office but doing almost nothing. Dr. Wishard went to Governor Claude Matthews, a Democrat, and told him of the virtues of the doctor who had a drug store at the corner of Ohio and Pennsylvania Streets, where the Federal building now stands. Matthews went to Dr. Hurty and interviewed him, but of course the Governor did not have the power to appoint. He did, however, give his consent to the appointment of Hurty. Then Dr. Wishard went to Douglas Ramsey, a Democrat, and sold him on the idea that Hurty was the man. So on March 5, 1896, the Board met, and three members of the Board voted for Hurty: T. Henry Davis of Richmond, John Forrest of Marion, and Douglas Ramsey of Mount Vernon.

Dr. Hurty was to take office May 1, 1896; however, five days after the meeting of this Board, Dr. Metcalf died, and two days after his death, March 12, 1896, Dr. Hurty took over the Secretaryship which he held for 26 years.

On at least three occasions, Dr. Wishard was instrumental in saving Hurty from being discharged. Those occasions were during the administrations of Durbin, Marshall, and Ralston. It had been one of Governor Marshall's campaign pledges that he would discharge Hurty. When he took office, however, he was congratulated by his old friend and classmate from Wabash College, William Niles Wishard, and Wishard was able to show Marshall that Hurty should not be discharged. He succeeded to such an extent that Marshall and Hurty became great cronies, and in 1915, when Marshall was Vice-President of the United States, he made a special trip from Washington to be present at the banquet given for Dr. Hurty.

Hurty is generally credited with the health laws of the State. One wonders how he got them passed because he was never popular with the legislators. He liked nothing so much as to call the legislators "morons," and they in turn regarded him as a "crank." How then could he get legislation passed? The answer is that Dr. Wishard, through his influence with the medical profession, and through his tremendous influence with the real leaders of the political parties, was able to put Hurty's legislation over.

It must not be forgotten that Dr. Wishard served on the State Board of Health from 1900 to 1911, which is the longest term of service except Dr. Hurty's and Dr. T. Henry Davis's of Richmond. He resigned in 1911 after talking to his friend Governor Marshall and convincing him that the State Board of Health should be bipartisan and

free of politics. He remained interested in the Board of Health all his life and served it both as a friend and also as a severe critic. Probably many members of the Medical Association will remember his severe denunciation of some of the acts of the Board of Health on the occasion of the Fort Wayne meeting in 1930. In recent years he has been very much interested, indeed, in the preservation of the ideals of the Board of Health and particularly in the biography of Dr. Hurty and the development of Hurty Hall as a Hurty museum. An enlarged picture of Dr. Wishard will be hung in Hurty Hall with appropriate inscription.

The Indiana State Board of Health owes Dr. William Niles Wishard a tremendous debt.

Dr. Wishard and I.U. Medical School

On the day when Dr. Wishard became a member of the faculty of the Indiana University School of Medicine, he said to me in the course of our conversation, "I pledge my unswerving support to the future of this school."

Never was he disloyal to that pledge. As chairman of the Executive Committee in charge of the day by day work of the School, as head of his department, as counselor to Dean and President, Dr. Wishard wrought with unfailing zeal to make the School be and do what it should for the science and practice of medicine. When events occurred not to his liking, he would say what he thought to those in authority, but he would add, "I will not rock the boat."

He would pass over minor and major difficulties for the sake of the supreme objective of the School and the medical profession.

In the earlier years, facilities were miserably inadequate and money lacking. The first great advance came when Dr. Robert W. Long, through the mediation of Dr. John F. Barnhill, gave us means to build the Long Hospital. On the day when Dr. Long placed the necessary securities in my hands, I chanced to meet Dr. Wishard in the corridor of the State House. I said, "Dr. Wishard, I have in my pocket securities worth $200,000 with which to build a hospital for the School of Medicine."

How would Dr. Wishard take that? What would he say or do, the large, powerful, dignified, reserved man of 65 years or more? I had one of the surprises of my life. He threw his arms around me and kissed me!

WILLIAM LOWE BRYAN,
President Emeritus, Indiana University

Dr. William Niles Wishard

Editorial from The Kentucky Medical Journal, March 1941, page 88.

Arthur T. McCormack, M.D., Editor

It is just a little difficult to think of the medical profession of Indiana without its distinguished dean, Dr. William Niles Wishard, who died in Indianapolis on Wednesday, January 22, 1941. Dr. Wishard and his father had been leaders of medicine in Indiana for more than one hundred years and few men have exercised a more valuable and more potent influence in American Medicine.

In the first place, Dr. Wishard was a splendidly qualified physician. Since 1879 he had devoted himself to the practice of urology. He performed the first prostatectomy in Indiana. Starting in the early days of this branch of medicine, he was always a leader in it, and hundreds of physicians and tens of thousands of patients—many of whom never knew nor heard of him—are the better because he lived.

In addition to and beyond the purely professional and scientific service which he rendered to his patients, Dr. Wishard was a medical statesman of the first order. He rarely missed a meeting of his county medical society and of the state medical association. He was one of those great men who helped to establish the Indiana State Medical Association on a sound basis. For many years he was a member of the House of Delegates of the American Medical Association and served on its most important committees. Few men contributed more to the effectiveness and serviceability of the organized medical profession of the United States.

Associated with Dr. C. A. Daugherty, Dr. Edwin Walker, Dr. A. E. Bulson and others of like caliber, he set standards of medical activities that have not been exceeded in this country or anywhere else.

Dr. Wishard was a large man, had a very firm countenance, as much moral courage and sound judgment as any one I have ever known, but he was as quiet as a lamb with it all.

There is one incident in his life that should be permanently recorded. For a number of years the American Medical Association had gone on record by the unanimous vote of its House of Delegates in general session as favoring a Secretary of Public Health in the cabinet of the President of the United States. This highly desirable purpose had the cordial support of both President Theodore Roosevelt and President Woodrow Wilson, although due to the combined influence of certain subversive elements in the profession, chiefly located in the Cook County Medical Society in Chicago, the legislative program of the Association was being sabotaged and its leaders determined that it would be better to elect my father, Dr. J. N. McCormack, as president on a definite platform for the establishment of a Secretary of Public Health. This movement was led by Dr. John B. Murphy, then president, and Dr. Daugherty and the active leaders in the opposition were the late Dr. M. L. Harris of Chicago, and Dr. E. C. Cantrell of Texas.

During the meetings of the House of Delegates in Los Angeles in 1911, Dr. Wishard was approached by the opposition with the suggestion that he be made president. This could have been accomplished by a unanimous vote of the House of Delegates as every one loved him and had confidence in him. My father was perfectly willing to withdraw in his favor, but after Dr. Wishard had conferred with his associates, he made the definite statement that my father's election was essential, if we would win our legislative fight in Washington, and he would not permit his name to be used in the matter.

The opposition then named Dr. Abraham Jacobi of New York, and elected him. Dr. Jacobi was not present at the meeting. He was one of the very greatest men who has held this exalted position.

Dr. Wishard unquestionably could have been elected unanimously president, had he been willing to accept it, but his loyalty to the profession and his friendship for my father caused him to refuse this very great honor. "Greater love hath no man than this, that he lay down his life for a friend."

Dr. Wishard was unwilling to sacrifice either his loyalty to the profession or to his friend. Upon his monument should be inscribed "Sans peur et sans regret."

Dr. Wishard Memorial Meeting, Indianapolis Medical Society, January 27, 1941

DR. WISHARD AND THE CITY HOSPITAL

The loss of Dr. William Niles Wishard is sincerely mourned by all of us. But we are proud of his achievements during life, and we glory in his accomplishments.

There is nothing we can say or do that will either add to or take away from the life of Dr. Wishard. His work is done. His life is ended. Dr. Wishard is no more, but his deeds, his personality, and his character will continue to live in the memory of each one of us until we, too, bid this earth farewell.

His very life parades before our eyes like the unfolding pages of a large book, a very large book, with many, many chapters. I open this book. I see a chapter entitled, "Dr. Wishard, Pioneer in the Fields of Hospital Administration and Professional Nursing." I read, and this is what I read:

Dr. Wililam Niles Wishard served as superintendent of the Indianapolis City Hospital from 1879 to 1887. The City Hospital was a primitive institution at the time Dr. Wishard became superintendent. It existed mostly in name only. It had been variously used as a pest house for smallpox, a military hospital during the Civil War, and later as an old soldiers' home.

When Dr. Wishard arrived on July 1, 1879, he found a frame building located in the swamp land. The location, while on the same site as the present institution, was much more inaccessible than at present. There were no street cars in this part of the city and there were no gas mains within several squares of the hospital. Electricity for lighting was not in general use. There were no water mains in this locality and bathing facilities were exceedingly limited. The building was heated by an open fireplace. Candles and lamps were used for lighting.

Asepsis was unknown and professional nursing had not yet been established in Indiana. Just two years before Dr. Wishard became superintendent, the first abdominal section was performed at the City Hospital and Dr. Wishard has told me that this was the first abdominal operation that he had ever witnessed.

The first night Dr. Wishard slept in the hospital as superintendent, a coal oil lamp exploded and disaster was only narrowly averted. The hospital had only recently been taken over by the City in 1866. Political intrigue was rampant then as it is today. Money was scarce and confusion prevailed. The handicaps under which Dr. Wishard took over the superintendency of the City Hospital were of such a nature that the courage of the average man would have failed him at the very beginning, but not so with Dr. Wishard. He brought order

out of chaos. He worked for, and obtained new buildings, modernized in accordance with the times. But this did not satisfy him. He realized that professional nurses were a necessity and over the objections of many of his colleagues, but with the help of the Flower Mission Society, he established a training school for nurses at the Indianapolis City Hospital in 1883. This school was the first one established in the State of Indiana and, I believe, was the second training school established west of the Allegheny Mountains.

In 1887 Dr. Wishard's term as superintendent of the City Hospital expired, but he never lost interest in this institution. Year after year he followed its progress. Step by step he watched it grow. He could always be found with his shoulder to the wheel when the City Hospital needed help. As recently as July, 1940, he visited the City Hospital for the purpose of assisting in the opening of its library and at that time presented to the library its first volume.

The City Hospital was very close to the heart of Dr. Wishard and I dare say that his love and devotion to this institution was second only to his family and his friends.

For nearly three quarters of a century Dr. Wishard has been the guiding star of the Indianapolis City Hospital. He never shirked a responsibility; no problem was too large or too small as to be unworthy of his attention. During his later years I have asked much of him and he has always given generously in both time and service. He was my friend and his friendship has enriched me.

He was a friend of the City Hospital and he will live long in the minds and hearts of those of us who were fortunate enough to have known him. His star, which first made its appearance over the Indianapolis City Hospital in the year 1879, has shone brighter and brighter each year, and tonight that same star still shines standing guard as it were over the destiny of the Indianapolis City Hospital.

The City Hospital will ever stand as a monument to the fortitude, foresight, and perserverance of Dr. William Niles Wishard. It is fitting and proper that a memorial be established at this institution which will bear his name, and from this date henceforth, the present Urological Ward shall be known as the

William Niles Wishard Urological Ward.

CHARLES W. MYERS, M.D.,
Superintendent, Indianapolis City Hospital

DR. WISHARD AND HIS PASTOR

"And the king said unto his servants, Know ye not that there is a prince and a great man fallen this day in Israel? And I am this day weak."

Yes, Lord, thy servants know that a prince and great man is gone, and our weakness we know. But if our poor bereft hearts only knew how to make triumph in Christ to ring through every word and note of this service we should be doing what this "prince and great man" wants us to do in this hour. Can't we unfurl the victor's banner? Can't we call out a chorister to pierce the sad air with a trumpet, sounding this great believer's triumph in Christ his Lord?

This man is Christ's man. We say "is Christ's man," because in the believing life Christ never allows death to put any man into the past tense. Life with Him "is." This man is Christ's man. He wanted everything he did to stream out of that obedience as from a never-failing fountain.

I wonder if he could go back into the years so far as to recall a time when he did not "glory in the cross of Christ." He was born and reborn into the Household of Faith. He seemed to do as by a spiritual instinct the noble and lovely acts which many of us only half succeed in doing after battles within ourselves.

Did he ever try to hide anything except amazing acts of generosity and magnanimity? He kept his right hand strictly out of communication with his left. He did not allow them even wireless equipment. Some of those acts were so amazing that few shall ever know them. He did not do them for credit, he did them for Christ, or rather, as he said, Christ did them in him.

The gentleness of the Lord made him great. And only the great are strong enough to be tender. He is enshrined in our memories. "The large placid brow, the soft lines of tranquil thought, the faculties of patience and unyielding will, and his wise, rare smile so sweet with certainties."

He was not offended by those who misunderstood him, for he had denied himself; he had taken up his cross and followed Christ. It is difficult to offend a selfless man.

He belonged to the company of the most trusted men on earth, our doctors. We trust you implicitly. To your hands we commit the innocence of our children, and the honor of our womanhood. And it is the special glory of your profession that we make these commitments without question, and as the merest matter of course because we know that they are safe in your hands. I think I understand a little of the humble joy of a believing Doctor, when he has done all he can in the grim fight with death, he knows One "who has abolished death." He knows death is not disaster but a door into life.

Dr. Wishard was more than a member of this most trusted company of good men, he was

a leader among them. And to them he brought honor.

He spared no time; he refused no discipline in his long preparation. He sought out the best on two continents. With rare equipment he met us and our diseases.

His patients gave him their confidence and their affection. His colleagues trusted him and honored him. His students received from him a legacy more lasting than gold. His helpers, the nurses, rejoiced to serve him.

His home was a kingdom of love to him. He had a happy voyage; such dear companions all the way, and for the future, Heaven, and the Great Physician's welcome and work without hindrance.

He received many honors, for men recognized his stately strength of mind and character, and they loved him much. But it is doubtful whether he held any honor on earth above his eldership in this Congregation. His whole life was a service to Christ, and his eldership was its crown. How shall we go on without him; how shall we work without the support of his prayers; how shall we endure without his cheering smile? We cannot, we shall not go on without him. We shall go on with him, for he is ours forever. Will he pray for us less wisely and availingly now that he is in Christ's nearer presence!

"Lord, give the Child-like faith that sees
Beyond earth's circling rim,
The inner glories, love enshrined
To eyes earth-shadowed, dim;
Then shall we know love ne'er is lost
When we are true to Him."

"The souls of believers are at their death made perfect in holiness and do immediately pass into glory."

They had finished his crown in glory, and we would not keep him away from his coronation, by the Lord "who loved us and loosed from our sins by his own blood, and hath made us kings and priests unto God."

DR. GEORGE A. FRANTZ,
Pastor, First Presbyterian Church, Indianapolis.

DR. WISHARD AND HIS ATTORNEY

It is an honor for one of different profession to be permitted to pay his tribute in this memorial to a great man. I was never his patient, but for more than thirty years I have been his counsellor and friend, on terms of rare intimacy. Ordinarily he did not require a lawyer. His able and comprehensive mind in his most important matters sought the equities of a transaction more often than the letter of the law. My last consultation with him in my own office was less than three months ago, when he sought counsel, not as to the legal rights involved in the matter in hand, but as to the moral aspect of a certain action he had in mind. He was right both as to the law and clearly as to the moral right to do the thing he proposed. So Dr. Wishard from time to time during the past thirty years has been more interested in the moral aspect of the transactions in which he engaged than in his legal rights in those matters.

His mind was more concerned with the right or wrong of a proposed action than in his statutory or lawful right to carry on. And so my contact with him was in a rare phase of the lawyer's relation to an able and powerful client. I cannot talk to you of his preeminence in his profession. You know that better than I, although I knew of his international renown and of the multiplied honors conferred upon him by the medical profession of this country, as well as the recognition of his great services written in languages foreign to our own. I was made happy by invitations to the celebrations of his anniversaries,—on the fiftieth anniversary of the commencement of his practice, on his eightieth birthday and subsequently on those occasions where the scientists and eminent physicians of this country came to Indianapolis to do him great honor.

Dr. Wishard came of a race of intellectual giants. His dignified and masterly bearing, together with his almost royal physical appearance and comportment, made him a distinguished and outstanding figure in any and all of the multitude of activities in which he participated as a leader and master with his fellowmen.

His pastor said recently that he was the noblest Christian gentleman that he had ever known. To this statement I want to give my hearty assent. In matters in which I have represented him he has exhibited the noblest qualities of which manhood is capable. The supreme test of laying down his life for another was not required of him, but he was always ready to make personal sacrifices, no matter how great, for those he loved. If I were not prohibited by the fiduciary relation, I could recite episodes and rare instances of sacrifice and nobility of the kind of which no record can be made excepting by the recording angel. His reward for doing noble things was the deep satisfaction which came to him from the very doing of them. A lawyer has opportunity to search a man's heart and to pass upon his motives as not even his pastor may do. But in this case Dr. Wishard commended himself to his pastor as being one of the noblest of men.

I assume that Dr. Wishard had critics in his profession. No man of true greatness has lived without them. The commonplace, humdrum exist-

ence of the mediocre man does not evoke harsh criticism or cruel analysis. If Dr. Wishard experienced such opposition, he made no sign of it. At one time in a contest it was said, in a moment of exasperation, that the opposing fellow was a dirty little dog. Dr. Wishard smiled and said, "Well, you know what a large Newfoundland dog does when a feist snaps at his heels; he goes along without paying any attention to him." And so, if Dr. Wishard during his career had professional criticism, he took the role of the Newfoundland dog and seemed oblivious to it. How much his heart or pride may have suffered, the world did not know.

As all men knew, Dr. Wishard was deeply religious. He came from religious ancestry. The Wishard family were religious. His brother, Albert Wishard, collected all he could find of the portraits of Christ. The Wishards have been prominent and constructive in the work of the Young Men's Christian Association and of the church and in the missionary field in different parts of the world. In these activities Dr. Wishard took great pride. He recalled to the speaker that on a trip to Europe he had visited the place where one of the Wisharts had been burned at the stake because of his religious convictions. At a critical time in the education of one of his sons, the young man, like most men with independent minds, had a severe struggle with Agnosticism. Dr. Wishard treated it as a victory when this young man was able to rationalize his religious views and went actively into the ministry. No accomplishment of his life pleased Dr. Wishard more than this victory, which resulted in tremendous usefulness of a now distinguished preacher.

Dr. Wishard was a rigid moralist. His denunciation of a broken promise was almost frightful. Any relaxation from the fine points of honor was offensive to his own high moral standards. He was capable of wrath, severe, sometimes fearful wrath, but he had not only the spirit of forgiveness but the ability to appraise the wrong doer and the environment or temptations that had influenced him. One day as we sat in the subway in the City of New York, he pointed out a person who he said was the victim of the sins of the fathers visited upon the third and fourth generation and then he remarked that the rigid denunciation of Hebraic Law had been ameliorated by the compassion of Jesus Christ and that Christianity, not only through science but through the merciful application of its principles, had operated to extend mercy to those who had invoked the infallible results of sin and crime. It was strange to hear this great man, a severe religionist, a rigid moralist, thus apply the saving grace of the religion of Jesus Christ to such concrete examples. It may seem strange that the speaker, most of whose contacts with Dr. Wishard were those of lawyer and client, should digress into these aspects of his noble character.

As in every large family, there were those who were greatly unfortunate. To those he gave of his time and resources without stint. There was no service too great for him to perform for one who carried the Wishard name or to whom he fancied he owed an obligation. In my own profession I have seen many instances of misfortune of different phases. I have never witnessed or heard of any finer or truer devotion than that of Dr. Wishard to such unfortunates as fell within the realm of his affectionate interest.

Members of your Society have spoken, not only of his professional distinction and accomplishments, but also of the great measure of good to the world because of them. Medical societies have honored him over and over and have praised but have not exaggerated his accomplishments. There has been no exaggeration and will be no exaggeration here tonight. Exaggeration would have been distasteful to him, as we all know. But we who have observed his life and accomplishments, even from a distance, and particularly those who have had intimate contact with William Niles Wishard, the man, are conscious that a great figure has had a physical passing out of this life.

Since his death I have thought of the great memorials in English literature that commemorate great lives. But there are none such of great dignity and strength with respect to a life nearly a century old. The English language contains but two such great poems as would be applicable to such a life. Milton's Lycidas, one of the greatest memorial tributes of all time, however, was to a young man, "for Lycidas is dead, dead 'ere his prime, young Lycidas hath not left his peer" but Lycidas "with new-spangled ore, Flames in the forehead of the morning sky * * * so Lycidas sunk low (he was drowned) but mounted high, through the dear might of him that walked the waves * * * henceforth art the genius of the shore." And Tennyson, in the great and sustained poem to the memory of Arthur Hallam, a young man in his early prime, writes of him as "the noble type appearing 'ere the times are ripe" but living on in immortality "towards that far-off divine event to which the whole creation moves."

In the case of Dr. Wishard we have a completed career in which the aspirations and capacity for good and for spiritual growth have already flowered and matured and no great heroic poem has been written to properly appraise and commemorate the finished life of such a man.

Wordsworth in his famous Ode dwells upon "Thy soul's immensity" and memorializes "the eye that hath kept watch over man's mortality" and "in our memories of him we give thanks to the human heart by which we live * * * its tenderness, its joys and fears."

The memorials of Milton and Tennyson were with respect to young lives with uncompleted careers. The tributes we pay here tonight are to the completed life of a rare man, one who walked with God until "God took him." At his funeral service it was peculiarly appropriate that

"Onward Christian Soldiers" was the opening hymn to the service. It comported with his life. He was an active Christian soldier up to the days of his last coma, participating in his profession, in the life of the community and in the church, always having tender solicitude for those he loved, and particularly for a rare and noble woman that has made his life sweet and graceful and strong for more than forty-four years.

I thought as his casket moved down the aisle and towards his last resting place that Handel's great stately Largo with its full sweep towards immortality was accompanying his majestic remains towards his last resting place, rising to its sublime heights and grandeur as he approached the throne of God. And that night after his burial one of the greatest orchestras in the world gave to the nation a sustained recital of rare beauty in the Prelude to Lohengrin, where the angels bearing the Holy Grail were piloting a noble spirit to the Eternal City, which to Dr. Wishard was a strong reality, firmly "believing where we cannot prove."

MR. JAMES W. NOEL,
Attorney-at-Law, Indianapolis.

DR. WISHARD'S WORK IN MEDICAL EDUCATION AND UROLOGY

I feel unable to do justice to Dr. Wishard's contribution to his specialty of urology. Perhaps one of his most important contributions was to make it respectable. He became interested in urology and convinced of its possibilities for development when he was superintendent of the Indianapolis City Hospital. He once told me how astounded the faculty of the Medical School was when he requested that he be given the Chair of Urology. The Dean of the Faculty said, "Well, you can have it, but do you realize that it will make you a professional outcast?"

Thus, in 1887, Dr. Wishard became head of the pioneer Department of Urology in the Indiana Medical College. He held this position until 1908. He served as Head of the Department in that school and in the Indiana University School of Medicine until 1936, when he resigned, after a total service of fifty years. Throughout this long period, he exerted a powerful influence over the administration of both schools.

One of the first urological problems which interested Dr. Wishard was the relief of prostatic obstruction. In 1890 he introduced a rectal speculum into the prostatic urethra through a perineal incision and cauterized the prostate under direct vision. This is probably the first time that the prostate was ever seen through the uretha.

Dr. Wishard was the first to call attention to atrophy of the enlarged prostate following its cauterization.

In 1895, he invented a method of introducing a catheter into a distended bladder through a suprapubic trocar puncture. The catheter was passed into the bladder through the trocar and then the trocar was removed. This method has since been used in the drainage of empyemas.

Dr. Wishard invented two forms of catheter. One of these was a flattened silk Coudé catheter, designed to slip over an enlarged prostate. The other was a special type of rubber catheter which goes by his name, and is said to be more extensively used than any other rubber catheter.

Early in his career, Dr. Wishard wrote papers on stricture of the uretha, external urethrotomy, bladder drainage, the palliative treatment of prostatic hypertrophy, carcinoma of the penis, vesical calculus, cautery operations on the prostate and renal decapsulation.

In 1890 he removed a part of a prostate through a median perineal incision, and on October 26, 1891, he did a complete prostatectomy through a median perineal incision. He published an account of this operation in 1892, which probably entitles him to priority in the use of this procedure.

Dr. Wishard was an active worker in the national societies of his specialty. He was a charter member of the American Urological Association and was President of it in 1906. He was also a member of the American Association of Genito-Urinary Surgeons and an honorary member of the French Society of Urology. These associations enabled him to keep informed of all new developments in urology and the number of these which occurred in his long professional life was immense—the cystoscope, the use of the x-ray in diagnosis and treatment, the discovery of the gonococcus, Treponema pallidum, tests for kidney function, and tremendous improvements in operative technique. He lived to see urology become a highly important and respectable specialty.

In the course of his long professional life, Dr. Wishard saw almost the entire development of scientific medicine; also, the revolution in American medical education. It is an exact statement of fact that medicine has made greater progress in the last sixty-seven years than it made in the preceding four thousand years. It is difficult today to picture the medical scene when Dr. Wishard entered it in 1874. Antiseptic surgery had barely been born, and was unknown in America. Surgical wounds were still bathed in laudable pus. The word bacteriology was unknown; it was not coined until 1884. Smallpox was the only plague physicians could control. There were no x-ray machines, no laboratories.

few hospitals. Infant life was still subject to the law of the survival of the fittest. Adult life might be destroyed by a great number of diseases now easily curable. Dr. Wishard was privileged to see medicine develop from this primitive state to its present one of power and splendor, and was a soldier in the Army which wrought this transformation.

In 1874 medical education was in a state no less backward than medical science. Dr. Wishard saw the birth and development of the great medical schools of today, and was one of those who elevated the standards of medical education. You all know the story of the Medical Practice Act of Indiana.

Dr. Wishard took an active part in the struggles which finally led to the consolidation of all the medical schools in Indiana, in 1908, into the present Indiana University School of Medicine. In this he was Head of the Department of Urology from the beginning of the School until 1936. I do not hesitate to say that this Department ranks with the best, and that its excellence is in great part due to the administrative genius of Dr. Wishard. I can say also that his greatest and most enduring monument will be the students he has trained in his Department.

The example of the teacher as a man and as a physician is of vast importance to the medical student. Dr. Wishard was the example copied by sixty-seven classes of medical students. It is both interesting and profitable to consider what qualities of character contributed to his highly successful and happy career. We may list them as follows:

(1) Dr. Wishard made a wise choice of his ancestors—he inherited long life and great physical and mental vigor. His success was not due entirely to his own efforts. Forty generations of vigorous ancestors should be thanked for a considerable part of it. He deserved entire credit for not destroying his heritage of good health by dissipation and careless living. He kept regular hours, took the necessary time to sleep, and renewed his strength by long vacations.

(2) Dr. Wishard was a man of indomitable will and fixity of purpose. When he formed a purpose, he never faltered until it was accomplished, no matter how many years it might require or how much industry, diplomacy, and patience it might demand. He had foresight to the point of genius. As David Starr Jordan said, "The world stands aside for a man who knows where he is going." It stood aside for Dr. Wishard.

(3) Dr. Wishard was a firm disciplinarian, who would not tolerate any lapse of loyalty or failure to obey on the part of his subordinates. This trait is well illustrated by his administration of the Department of Urology. The attendance of the members of the Urology Department at its clinics was always one hundred percent perfect. Dr. Wishard told them that they must be there and they were present.

(4) Dr. Wishard was always careful to observe the proprieties of life, and to discharge his obligations as the head of a department and as a member of the faculty. He was careful of his appearance, dignified, and courteous in his bearing. He was a good listener, and a forceful speaker whose opinions always had the weight which comes from careful premeditation. He knew well the etiquette of medical life, and the routine of office procedure.

(5) Finally, Dr. Wishard had an infinite capacity for taking pains. He realized that trifles make perfection and that perfection is no trifle.

Count no man happy until he is dead. Dr. Wishard was singularly fortunate in his old age. Almost to the end he retained undiminished vigor of mind. He remained a power in organized medicine until the time of his death. The spectacle of his vigorous old age is probably the most enlightening one which his life presents. It shows that it is possible for an able man to increase in efficiency and value to society with age. His long experience of affairs and of men gave him the power which comes from knowledge.

One of the most valuable lessons a young man can learn is that the world is ruled largely by men past middle life, Osler to the contrary notwithstanding. An able man may be younger mentally at eighty than a second-rate man at thirty-five. Great masterpieces of Art, Literature, Generalship and Administration made by the aged form a very long list.

Dr. Wishard kept alive as long as he lived. He was happy in his relations with the public, with his patients, his professional associates, and with his family. He did the work he loved to do until the end. And may I add in conclusion that he was happy in the way of his taking off, for

> ". . . with no fiery throbbing pain,
> No cold gradations of decay,
> Death broke at once the vital chain,
> And freed his soul the nearest way."

W. D. GATCH, M.D., *Dean,*
Indiana University School of Medicine

DR. WISHARD AND THE BUREAU OF PUBLICITY

When considering the kind of formal statement that should be made by the Bureau of Publicity on behalf of the Indiana State Medical Association for this occasion, Doctor Frank Gastineau, the ranking member of the Bureau, suggested that no formal statement need be made as Doctor Wishard's record speaks for itself. Doctor Taylor, the other member of the Bureau, concurred with Doctor Gastineau's suggestion.

The official record of Doctor Wishard's work on the Bureau for the past nineteen years is written in the week to week minutes of the Bureau of Publicity which have appeared throughout these years in the back of The Journal. Few read them, but written as they are in the formal style of a standing committee of the state association,

they reflect the judgment and vision of Doctor Wishard who served as the Bureau chairman since its origin in 1922.

Each week Doctor Wishard came to the headquarters office for a Bureau meeting and in later years we went to his office or sometimes to the hospital. Doctor Wishard put his whole energy into the work of the Bureau, enjoyed it, and was in top form upon these occasions.

Throughout the years we who served with him on the Bureau—Dr. John A. MacDonald, who presented the resolution creating the Bureau, Dr. Cregor who served for so many years as a member, Dr. Stygall who was the first secretary of the Bureau, Dr. Hadley, Dr. Hahn, and Dr. Thompson —always looked forward to the Bureau meeting and have innumerable recollections of interesting discussions and definite actions. From time to time I jotted down some of Dr. Wishard's comments that, of course, do not appear in the minutes but may serve to give us a sidelight on his great personality, marked as it was with a deep sense of dignity on the one extreme and a keen humor on the other.

He could be as hard boiled as any city editor and as intolerant of any fuzzy-mindedness in thought or writing.

"I'm for doing things in due and ancient form"—and yet his ideas were ever progressive and his thoughts far ahead of the trend.

"A man may have a great deal of knowledge and yet lack wisdom."

"Our bodies are only a lot of weak worms which return to dust—principles and personalities do not return to dust."

"Every man has a solemn obligation to do something constructive every day."

"What have mere personalities to do with an act having to do with matters of public welfare?"

"A cultural background of broad general education is necessary before professional instruction should be undertaken."

Dr. Frantz spoke of his will—

"It looks impossible," said one of the committee members one day. "Why," said Dr. Wishard, "It is altogether possible."

Reverence for traditions was deep rooted in Dr. Wishard. I shall never forget his delight and enthusiasm that day I showed him the first volume of the Indiana State Medical Association Transactions.

"Too much indiscriminate publication of truth is sometimes a very bad thing because truth so often is misunderstood."

"I hope I will be as well as you when I am your age."

"If you have something to tell, tell it so you can be understood and in dead earnest."

"I did not think that I would live to see the day when the Indianapolis Medical Society would descend to the point when we would debate whether it was right to be honest or not."

"We all smack more or less of commercialism and we ought to be smacked for it."

His humor broke out and bubbled forth. Even in some serious cases, when he was telling of things which he desired be talked about in confidence, he would always have the type of introduction and preoration, "Will you raise your right hand, put your left hand on your umbilicus, and swear by your chin whiskers?"

Speaking of his organization he spoke with enthusiasm. He admired executive ability above everything else except true science and religion. He thought clear to a point.

"There is nothing that so polishes, so glosses the human mind as the hard grind of the classics."

"It is extremely difficult to deal with some people and still be honest and wise."

"My long and tempestuous career has taught me some things that may possibly be of benefit to you in time to come."

I never will forget the day that Dr. Wishard came into the office—the day my daughter was born, and said, "I want the committee to introduce, to make the resolution complimenting our executive secretary on his efficiency as indicated by recent events."

Pointing to the picture of Dr. John S. Bobbs, among the past presidents that Dr. Wishard gathered together at the headquarters office, he said, "There is the man who put Indiana on the medical map of the world."

"From time to time it is good to do some housecleaning of the intellect but don't sweep away the principles that are fundamental and essential."

"Things are better done when they are impartially done, carefully done, thoughtfully done, and done for the fun of it."

"Newspapers are substituting pictures for thoughts and facts. I am getting awfully tired of the newspaper grin—people who try to look attractive and in reality only look silly."

"Concentration, environment and an acquired psychology, give us wisdom and reflection. But we usually don't reflect—we jump."

"What's the use of putting out a lot of bunk about ourselves—the urge to do this is irresistable in some young men and has become chronic in certain cases of old men."

He had fictitious characters, one of whom he called, "Sir Golden Thundermug."

"I learned to be a chronic proof reader when superintendent of the city hospital."

"Won't you move up closer? I'm a bit blind in each ear."

"I've seen two bull fights and one hanging and that's enough for one lifetime."

Dr. Wishard had something of the severe elegance of a Doric column but he had a great tolerance.

"If a man is to be judged by the worst he ever did," he once said, "or the worst he ever thought, God pity all of us."

Dr. Wishard would have been an outstanding newspaper man or publisher. He said, "Editors too often like snappy things, and if certain instances are not sufficiently snappy, they take it upon themselves to make them so. Newspapers should be more than merely informative—they should be educational."

This motto should be over the desk of every newspaperman, every magazine writer, every one who writes for the public.

On July 20, 1931, he said at the end of the meeting—

"If I never attend another meeting of the Bureau of Publicity, I want you to know I have enjoyed the work with you gentlemen more than I can ever say."

The spirit of Dr. Wishard will survive in Indiana and in some dark hour when some blitzkrieg of ignorance threatens us, just as the citizens of London have the tradition of Wellington, Marlborough and Nelson to rely upon—we will have the strong resolution and the great courage of Dr. Wishard to sustain us and enable us to carry on and win through.

THOMAS A. HENDRICKS,
Executive Secretary,
Indiana State Medical Association.

An extensive obituary notice concerning Doctor Wishard was published in the February issue of THE JOURNAL, on page 91; an editorial appreciation of Doctor Wishard was published in the March 1941 issue, page 148.

President's Page

Dear Doctor:

The League of Women Voters is doing a good job in studying socialized medicine. Their national organization has sent out a kit containing pamphlets written by Trufant Foster, by the Jewish Council, Sigerist of Johns Hopkins Medical School, and several other brochures all of which are in favor of socialized medicine, and only two that are published by the American Medical Association.

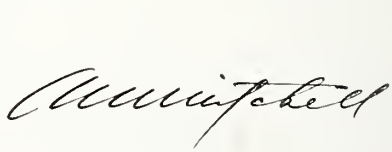
It is imperative that doctors' wives who are members of the League interest themselves in this study. Their influence and discussion will be very valuable. Why the doctors have to be on the defensive all the time is hard to fathom, but nevertheless they must be.

It seems that many persons (social workers and politicians) who are not trained in the practice of medicine or in its executive phase want to take over the care of the health of the people, and I believe their motives are selfish.

Now, doctor, get on your toes! You are a belligerent in two wars: one for the preservation of democracy and one for the preservation of your daily activities. And the war against you personally is being waged under the mask of National Defense!

The Monster—Governmental Regulation—is still after you.

Sincerely yours,



THE N.Y.A. HEALTH PROGRAM

J. NEILL GARBER, M.D.
INDIANAPOLIS

The proposed health program of the National Youth Administration for the out-of-school youth is nation-wide in scope and is an emergency project under the National Defense Program.

Cooperation with this health program in Indiana was recommended by the Executive Committee of the Indiana State Medical Association on March 16, 1941, after a conference between that committee and the N.Y.A. officials during which the subject was freely discussed.*

At a subsequent meeting a set of principles was established to serve as the basis for a working agreement between the Indiana State Medical Association and the Indiana National Youth Administration. The principles were submitted to and approved by the Councilors of the Indiana State Medical Association before any action was taken by the N.Y.A. These principles are as follows:

1. The proposed health program shall be made available only to those who are bona fide participants in the N.Y.A. activities.

2. Formation and administration of a health program in each county shall be worked out jointly between the N.Y.A. and the county medical society, such program to be adapted to the specific conditions existing in the respective community.

3. Initial efforts in putting the proposed health program into effect shall involve physical examinations of N.Y.A. youth.

4. In connection with the physical examination program, efforts should be made to develop a sound program of health education for N.Y.A. youth under the guidance of the county medical society, the State Department of Health and local health departments.

5. For the guidance of county medical societies in setting up a physical examination program for N.Y.A. youth, the following procedure is suggested (each county determining if such a procedure would be feasible in that particular community):

(a) Organization of teams of physicians by the county medical society for the purpose of conducting the physical examinations.

6. Inasmuch as the proposed N.Y.A. health program is an emergency project under the National Defense program and experimental in scope, the terms and conditions of any agreement worked out between the N.Y.A. and the county medical society may require periodic revision. Therefore, frequent conferences should be held by representatives of local medical societies and N.Y.A. officials so that modifications of programs under way may be made to meet new and unforeseen conditions and situations. Both the county medical society and the N.Y.A. shall have the right from time to time to recommend changes in such program, subject to mutual agreement before becoming effective.

7. County medical societies should feel free to consult the Executive Committee of the Indiana State Medical Association for detailed information on matters of policy and procedure which cannot be settled locally.

8. The Executive Committee recommends that the county medical societies investigate and cooperate with the National Youth Administration state health consultant in securing proper physical examinations for the N.Y.A. group.

There are between 9,000 and 10,000 out-of-school youth enrolled in the N.Y.A. of Indiana who will receive these examinations.

The objectives of this program are:

(a) A physical appraisal, by means of a technically competent health examination, of every youth assigned to the N.Y.A. out-of-school work program.

(b) Correction of health defects through maximum utilization of community resources, through the use of supplementary medical and dental services provided where possible by the National Youth Administration, and through developing in youth an interest in improving their health by their own personal efforts.

(c) To give improved technical advice and assistance with respect to all N.Y.A. efforts having a direct and immediate bearing on the health of youth workers, such as nutrition, physical development, and recreation.

The major purpose of the health examination phase of this program is to facilitate the assignment of youth to the proper types of work; to assist in guidance of individual youth in physical development activities; to discover health conditions that need attention; and to serve as a tool in health education work.

There are two phases in this program: the examination (educational); and the remedial. Initial efforts are being directed toward the first, and the conduct of the remedial phase will be considered at additional conferences between N.Y.A. officials and representatives of the state medical association. In initiating and carrying through this program, the N.Y.A. not only seeks but is eager to have the guidance, advice and cooperation of the state and county medical societies.

* Reported in Executive Committee minutes, *J. Ind. State Med. Assoc.*, **34**:5 (May) 1941, p. 279.

The dental examinations of these youth are also highly important and, in this regard, the N.Y.A. has sought and obtained the advice and cooperation of the Indiana State Dental Society.

Each of the examining teams to do this work consists of an eye, ear, nose and throat specialist, an internist, a surgeon, and a dentist, the number of teams in each locality depending upon the number of youth to be examined. In some localities certain modifications may be necessary as the program continues.

The appraisal of each youth includes history, physical examination, urinalysis, drawing of blood sample for serologic test, and a tuberculin test. A smallpox vaccination is also given. The histories will be taken and the grouping of youth arranged by the N.Y.A. nurses and supervisors. Materials for the various tests are supplied by the N.Y.A.

Those youth who show positive reactions to the tuberculin tests will receive x-ray examination of the chest, and the N.Y.A. hopes to have cooperation from both the Indiana Roentgen Society and the State Tuberculosis Association in the management and follow-up of these cases.

Examinations were begun in a few localities soon after the conference with the Executive Committee of the Indiana State Medical Association, and to date between 500 and 600 have been completed. Among these are youth in the resident camp at Burns City and those who reside locally in Indianapolis, Evansville and Bloomington. Examinations are also to begin in South Bend within the near future. Everywhere, thus far, cooperation of local societies has been excellent.

At the time of his examination, each youth is encouraged to ask the physicians about his physical condition and the physicians, in turn, may give great service in advising as to what remedial steps should be taken. Educational responsibility lies also upon the N.Y.A. nurses and supervisors to explain and to encourage the correction of physical disabilities.

Conduct of the remedial phase of the program has yet to be planned, but the N.Y.A. is desirous that the youth will have free choice of physician or dentist and will care for the cost of his treatment with his personal earnings. In section "b" under objectives of this program there appears, "Correction of health defects . . . through the use of supplementary medical and dental services provided where possible by the National Youth Administration. . . ." This applies now only to the camps where youth are in residence for considerable periods of time.

The effort now is to determine from the physical appraisal the condition which exists, and when that is known consideration will be given toward the improvement of it.

In outlining this program in Indiana, the Executive Committee is using the plan adopted by the Ohio State Medical Association and the N.Y.A. as a basis, leaving it up to the local county medical societies, if they desire to cooperate, to present to the N.Y.A. state health consultant the names of teams that they would consider satisfactory to do this work. Every possible effort will be made to have the health program for N.Y.A. youth in each county meet the desires and suggestions of the county medical society.

PAUL O. SAMPSON, FOOD AND HEALTH EXPERT

THURMAN B. RICE, M.D.

About fifteen years ago there began to be heard a man by the name of Paul O. Sampson who was supposed to be representing the National Health League. He went about over the country posing as a health expert and food specialist. In particular he appeared before service clubs and women's organizations where he made a health talk which extolled the virtues of vegetables and fruits and criticized the use of white bread, meat and eggs.

He was one time made the subject of a thorough study by the American Medical Association and as a matter of fact was thoroughly exposed in *The Journal of the American Medical Association* as of July 12, 1930. It was shown at that time that his claims were false and that the National Health League was using the names of several important persons who knew nothing whatever about the League and that the active members in the Health League were Sampson himself and his wife and then one Cecil Loy, secretary-treasurer, and Frederick Earl, publicity director. Upon investigation it turned out that Cecil Loy was the twenty-year-old son of Sampson and that Frederick Earl was the sixteen-year-old son. The name, Sampson, which was rightfully theirs, was dropped for reasons that can easily be imagined.

For one reason or another, probably because of adverse publicity, Sampson was compelled to drop out of sight for a while, but now he is back again. Recently he has been appearing in Indiana giving his talks and posing as a distinguished authority on foods. He gives his talk gratis (sic) and then sells for $5 a pamphlet which could easily be reproduced for 15 or 20 cents. It consists of 29 pages in a thin manila folder. We are told that in many instances he sells large numbers of these pamphlets. At one club meeting he is known to have sold seventeen of these folders entitled "Health in a Nutshell."

A study of this folder reveals some very astonishing things. It would be impossible for us to review the whole thing and all the errors that are made, but we shall mention a few of them. In the first place let it be said that very much of the content of the folder is made up simply of generalizations of this and that sort of thing which for the most part is true enough but not pertinent.

Then there are a great many references to recognized food and health authorities of which paragraphs and sentences are taken out of their context and used for whatever purpose seems convenient. For example, there are many references to Pavlov's work. There are also many references to the work of Dr. McCollum, but the name is spelled "McCullum." Dr. Sherman of Columbia University is flattered by having many references to his book, *Chemistry of Foods.* Fisher and Fisk's book, *How To Live*, is much quoted. Figures are taken from the Metropolitan Life Insurance Company and Government reports. As might be expected, he quotes the Bible on every possible occasion. Altogether he makes a fabric of plausible-appearing pseudo-science which would probably be very convincing to persons who are not well informed on these matters.

When you read closer, however, you find some very interesting gems. For example, on page 5 he says, "They (cancers) are manufactured within the human body from wrong conditions of eating." Cancer is a favorite subject of his, and he is constantly mentioning the fact that it is increasing. We find, for example, that he referred to cancer when he spoke to the Kiwanis Club at Portland recently. The Portland *Daily Sun*, April 17, 1941, has this paragraph in reporting his talk, "Cancer, which is rapidly advancing as a dangerous disease, especially in Indiana, can be relieved and often cured by the use of proper food."

On page 6 of his valuable pamphlet he tells of an instance in which he cured a case of heart disease of fifteen years' standing by giving a diet containing a proper balance of calcium, potassium and sodium. He becomes quite scientific in explaining the action of the salts of these metals on a dog's heart. All of which makes it appear that the man is talking right out of a big physiological laboratory.

Also on page 6 of his pamphlet he tells how his wife, Mrs. Sampson, saw a woman faint in a department store. She had a very bad pulse but was restored to consciousness by Mrs. Sampson who then began to tell her how to live. It appears that this woman was pregnant, so Mrs. Sampson prescribed a diet rich in calcium and cured the woman of her faintness. At the same time she also cured the year-and-a-half-old son by giving him the same food, and the unborn child was cured of chronic invalidism. (We are inclined to think that the obstetrician was able to correct her more urgent symptoms.)

Another gem on the same page is too good to be translated. We shall have to quote literally: "Last summer, at the National Food Show, a gentleman came up to me and said, 'My wife is suffering nervously, cannot sleep at night and is soon to be a mother.' I said, 'Her teeth are going all to pieces.' He asked, 'How do you know?' I replied, 'Just from the description you have given me. That woman needs proper food.' I talked with him, told him what kind of food to give her and it was only a few days until that woman was sleeping normally."

On page 26 we have explicit directions for the feeding of a baby, giving the details. Among other valuable points we have this choice bit, "Teach the child to drink water between meals, not at the meal."

On page 14, we find, "If there is not sufficient acid (in the stomach) to make a kumiss of the milk, the tongue will have a brown coating, which signifies that one is bilious, and milk should not be continued."

On page 16 we see the statement that fruits and vegetables should never be eaten at the same meal because they disagree chemically.

On page 9 we find an astonishing scientific fact, "The human body is unable to assimilate these mineral elements in their organic condition." (He had previously given the composition of the body in terms of elements.) The use of the word *organic* there is a little astonishing. It is entirely possible that the man means "inorganic," which statement would still not be true but would be somewhat more logical.

In one place he says, "No refined sugar should enter the stomach." The only sweets that should be eaten, according to him, are honey and such native sweets as syrups, etc., made from the original sap. It is our opinion that the original sap in this case is the gullible service club member who would pay $5 for an unbound 29-page pamphlet such as we have been describing. It is interesting to know that practically all the really good books on nutrition put out by recognized authors could be had for considerably less money.

It is interesting to observe that the last 12 pages of the 29-page booklet are made up of recipes which could easily have been copied from any of a hundred sources and that probably 75 per cent of the entire remainder, and indeed all the pamphlet that amounts to anything, has been or could have been taken almost literally from any of a hundred books on hygiene or dietetics.

At the end of the pamphlet we find that he has another way of bringing in the ducats. He is advertising a series of remedies made "from the herbs of the fields," which are modestly described as being a "real benefit to mankind." The granddaddy of all these preparations is "nature's herb tea, Veg-Vita," which is recommended for gas, sour stomach, nervousness, constipation, loss of sleep, congestion of liver, bladder and kidneys, fatigue,

arthritis——and as a side line it cleanses the blood.

Now it seems, however, that this preparation also has some offspring. We shall quote, giving prices and for what they are used:

Veg-Vita-X $2.00
Arthritis, neuralgia, rheumatism, lumbago and kindred troubles disappear with the use of this herb mix.
Veg-Vita-C $2.00
Constipation, clogged kidneys, bladder irritation find quick relief.
Veg-Vita-A $1.50
Asthma, hay fever, bronchial disorders. A very effective relief.
Veg-Vita-T $2.50
Tumor, ulcers, cancer. Nature's gift of herbs that bring relief to the riotous cell tissue growths.
Veg-Vita-G $2.00
Gas, fermentation, sour stomachs. Soda is a dangerous relief. These herbs as quickly relieve without poisoning the blood stream.
Veg-Vita-N $1.50
Loss of sleep, nervousness. A tonic of excellent value.
Veg-Vita-B $1.50
Blood purifier, syphilis and sexual diseases. Has brought relief to cases of long standing.
Order by checking the combination you desire. We do not diagnose the disease or prescribe herbs for you. You must choose the herbs you want as to what your diagnosis has been.

Mr. Sampson says that he has sold more than 117,000 copies of diet literature. If he has gotten $5 each for those, it makes a neat sum. Then, of course, it is to be supposed that he sells some of his Veg-Vita, but there are still other sources of income. "We also direct individual diets in a special course by correspondence. Our fees are reasonable. We have made many friends who attribute their return of good health to our efforts in corrective eating for them." We understand that for such a correspondence course in treatment of disease the modest sum of $75 is sufficient.

Verily, verily, the American public is gullible.

Annual Convention

GOLF

DETAILED PLANS ARE BEING FORMULATED FOR AN UNUSUALLY GOOD TOURNAMENT AT THE HIGHLAND COUNTRY CLUB COURSE IN INDIANAPOLIS. ADEQUATE FACILITIES FOR ALL THOSE WHO WISH TO PARTICIPATE IN THIS EVENT WILL BE PROVIDED.

GOLF TOURNAMENT COMMITTEE
E. W. Dyar, M.D., Chairman

Indiana State Medical Association
Indianapolis, September 23, 24, 25, 1941

UNDER THE CAPITOL DOME

The recently published annual report of the Indiana State Prison showed that thirty-seven per cent of the inmates housed in the institution at the close of the fiscal year had some form of venereal disease. Of those admitted as new prisoners during the fiscal year, 35.2 per cent were infected.

The report for the Indiana Woman's Prison gave no statistics on the prevalence of venereal diseases either among inmates at the close of the year, or among those committed during the year. However, Dr. Martha C. Souter, prison physician, stated in her report that "the number of women admitted with gonorrheal infections seems to be decreasing." The report also showed that 1,078 syphilitic treatments were administered at the prison hospital during the year.

The report for the Indiana State Prison showed that 7.1 per cent of the men admitted as new prisoners during the fiscal year had syphilis; 24.6 per cent had gonorrhea, 3.5 per cent had both. A total of 64 per cent had no venereal disease, while 0.8 per cent was unknown. For white men admitted, the percentage of those infected with syphilis was 7.4, and for Negroes committed, the percentage was 6.1. A total of 23.3 per cent of the white men admitted had gonorrhea, and 31.3 per cent of the Negroes were infected. New admissions infected with both diseases totalled 2.7 per cent for whites, and 6.9 for Negroes.

Mental tests given most of the 631 prisoners admitted during the fiscal year showed some interesting results. Fifty-seven showed a mental age of 7.0 to 8.9 years; 113 an age of 9 to 10.9 years. The mental age of 122 of the men was reported at 11.0 to 12.9 years, while that of 103 men was 13.0 to 14.9 years. Seventy-seven showed a mental age of 15.0 to 16.9 years and thirty-one, an age of 17.0 to 18.9 years. Only nine were reported with a mental age of 19.0 or over. No tests were given to 119 of the new prisoners admitted during the year.

The marital status of 2,635 prisoners held in the institution at the close of the fiscal year was given in another report. It showed that the group was composed of 911 single men; 956 married men; 181 separated from their wives; 364 divorced, and 215 widowed. The marital status of eight was unknown.

Miss Lillian L. Lockridge, social worker at the Woman's Prison, reported that the median mental age of the twenty-eight women tested was twelve years and five months. (Binet Examination.)

"An interesting factor to note," her report said, "is that even though the median mental age this year tends to be about the same as the median mental ages of previous years, we tend to get fewer women who have leadership ability or who show initiative and self-reliance. Our new admis-

sions tend to be more or less colorless types of individuals who have no real desire to make more out of their lives than they have in the past."

Intoxication was the charge that brought the largest number of women to the prison, this group including 94 of the 237 admitted to the penal and correctional divisions during the year. Petty larceny was the second biggest contributor, with a total of 40. Contributing to and encouraging delinquency was the third most important charge, accounting for thirteen admissions during the fiscal year. Four were sentenced for driving while intoxicated.

During the fiscal year one woman was sentenced for involuntary manslaughter, three for voluntary manslaughter, and two for murder. During the same period twenty men were sentenced for murder; twenty-one for non-negligent manslaughter, and thirteen for negligent manslaughter. Six women were sentenced for sex offenses (not including accessory to rape), while twenty-five men were sentenced on similar counts. Thirty-five men were sentenced during the year for rape. One woman was sentenced for incest; two for keeping a house of ill-fame; one for accessory to rape; four for violating the venereal disease law; and one for visiting a house of ill-fame.

The marital status of women committed during the year was as follows: single, twenty-four; married, eighty-six; separated from their husbands, sixty-two; divorced, forty-four; widow, twenty, and unknown, one. (Total, 237.) One hundred and seventy-two of the women committed were white, sixty-five were Negroes.

TWENTY-FIVE YEARS AGO

"Small Cysts of the Ovary" by J. A. Work, Jr., "The Tonsil" by Marcus Ravdin, "Chronic Suppurative Ethmoiditis" by W. S. Tomlin, "Blood Clot Dressing in Simple Mastoiditis" by K. K. Wheelock, and "Vascular Hypertension in Eye, Ear, Nose and Throat," by Walter Leach, comprised the scientific paper section.

At long last it was decided that it was not necessary for physicians to fill out Form 26 for the Workmen's Compensation Act. This detail had been a bugbear to physicians for many moons.

Bulson again had his say about newspaper publicity; said that in most cases the offending physicians supplied the information to the press. (After 25 years this evil is greatly abated, though we still have a few physicians who like to see their names in print.)

The fake medical journal and medical book artist seems to have been abroad in our land; Bulson talked a lot about it.

Senator Work, California, had introduced a bill in the Senate that would have prevented any medical officer in government service from becoming a member of any medical society. The Senator was an ardent Christian Scientist; his bill proved to be a dud.

Dr. John L. Masters, eminent eye physician of Indianapolis, and the father of Drs. Robert and John Masters, died at his home in Indianapolis.

William Tecumseh Sherman Dodds, a pioneer in Indiana tuberculosis work, died in Indianapolis. He also was one of the first Indiana physicians to make a study of anaphylactic shock. We never shall forget his definition of anaphaylaxis: "immunity, run wild."

Indianapolis was to have a chapter of the American Red Cross.

Dr. Paul F. Martin, Indianapolis, and Dr. W. C. Moore, Summitville, had left for Budapest to take charge of a hospital.

Dr. H. J. Defrees, Nappanee town health officer, had installed a new garbage system.

South Bend was to have a sanitary survey at an expense of $2,000.

The following physicians had organized the New Castle Clinic: J. E. Hiatt, D. S. Wiggins, H. W. McDonald, E. K. Westhafer, C. C. Bitler, George Smith and G. A. Hiatt.

There were ninety applicants for the freshman class in the Indiana University School of Medicine.

On May 17, at Hotel English in Indianapolis, first steps were taken toward the organization of a Birth Control League. Mrs. Margaret Sanger, of New York, head of the movement, was present.

Dr. Ada M. Schweitzer, of the State Board of Health, addressed a Muncie group during Child Welfare Week.

Hope hospital, Fort Wayne, had graduated five nurses; 26 went forth from Methodist hospital, Indianapolis, and 9 from Union hospital, Terre Haute.

$$$$ KNOW YOUR MONEY $$$$

Observance of a few simple rules, as outlined in a pamphlet published by the U.S. Secret Service (authorized by the Secretary of the Treasury, Henry Mongenthau, Jr.) will safeguard the pocketbooks of the nation. The United States Secret Service solicits the assistance of every American citizen in this effort to prevent crime.

The U.S. Secret Service Department is a division of the Treasury Department, and is one of the oldest and best known law-enforcement agencies of the Federal Government. Established during the Civil War, the agency celebrated its seventy-fifth anniversary July 2, 1939. Chief duties are: (1) Protection of the President of the United States, his family, and the person of the President-elect; (2) the suppression of counterfeiting and alteration of obligations of the United States and foreign governments; (3) the suppression of the counterfeiting, forgery, alteration and fraudulent negotiation of U.S. Treasury checks; and enforcement of numerous other laws as provided by Congress.

CURRENCY

Three types of currency are printed by the United States Government for circulation:

1. *Federal Reserves Notes* which bear *green* serial numbers and seal.

2. *United States Notes* which bear *red* numbers and seal.

3. *Silver Certificates* which bear *blue* numbers and seal.

PORTRAITS: Denominations of bills may be identified by portraits as follows:

Washington appears on all one-dollar bills
Jefferson appears on all two-dollar bills
Lincoln appears on all five-dollar bills
Hamilton appears on all ten-dollar bills
Jackson appears on all twenty-dollar bills
Grant appears on all fifty-dollar bills
Franklin appears on all one hundred-dollar bills

HOW TO DETECT COUNTERFEIT BILLS

Compare the suspected bill with a genuine one of the same type and denomination. Observe the following features:

(a) Portrait: On the genuine bill, the portrait is lifelike, stands out from the oval background which is a fine screen of regular lines; notice particularly the eyes. The counterfeit is dull, smudgy or unnaturally white; scratchy; background is dark with irregular and broken lines.

(b) Seal: On genuine, sawtooth points around rim are identical and sharp. On counterfeit, sawtooth points are usually different, uneven, broken off.

(c) Serial Numbers: Genuine distinctive style, firmly and evenly printed; same color as seal. Counterfeit, style different, poorly printed, badly spaced, uneven in appearance.

(d) Paper: Genuine bills are printed on distinctive paper containing very small red and blue silk threads.

Rubbing a bill will not prove whether it is genuine or counterfeit; ink will rub off of either.

HOW TO DETECT COUNTERFEIT COINS

Ring all coins on a hard surface. Genuine coins sound clear and bell-like; counterfeits sound dull.

Feel all coins; most counterfeit coins feel greasy.

Compare the reeding (the corrugated outer edge) of a suspected coin with one known to be genuine. The ridges on genuine coins are distinct and evenly spaced. On counterfeit coins they are poorly spaced and irregular.

Cut the edge of suspected coins; most counterfeits are made of soft metal which can be easily cut with a knife.

Test suspected silver coins with acid. Scrape the surface and apply drop of acid. If bad, the coin will turn black unless it has a high silver content. Silver test acid solution may be purchased at any drug store.

GOVERNMENT CHECKS

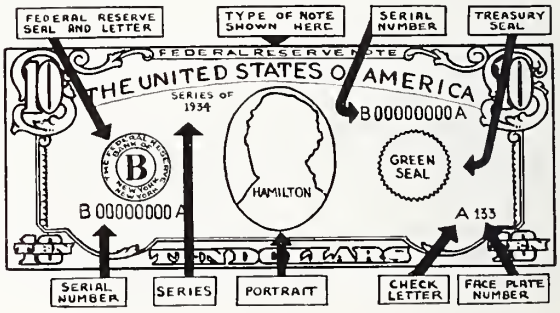
Many Treasury checks issued by the Government are stolen from letter boxes or in other ways, and are forged to obtain the proceeds. The safest thing for a physician to do is to refuse to cash government checks or to accept them in payment of services *unless the payee is known to him.* A check with address far removed from the place where presented should be cause for suspicion.

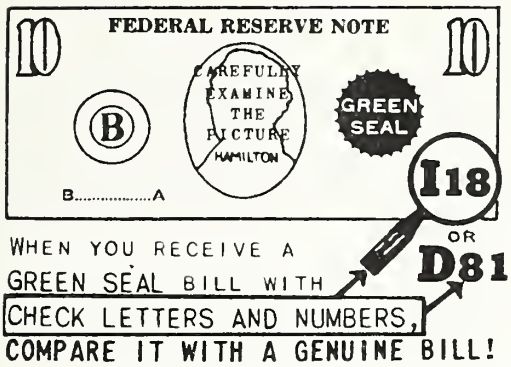
The maximum penalty for possessing or passing a counterfeit bill with intent to defraud is 15 years in the penitentiary and a fine of $5,000.

Any one who has the custody or control of such counterfeits and refuses to surrender them upon request of an authorized Treasury Agent shall be fined not more than one hundred dollars or imprisoned not more than one year, or both.

* * *

STUDY THIS DIAGRAM WHICH ILLUSTRATES THE POSITION OF IMPORTANT FEATURES OF CURRENCY REFERRED TO IN THIS ARTICLE:





The counterfeit portrait will be either too black or too light, and will lack the delicate detail of the genuine.

WHEN A STRANGER GIVES YOU A COUNTERFEIT BILL—

1. DO NOT RETURN IT!
2. Telephone POLICE at once!
3. Delay the passer under a pretext.
4. Avoid argument; if necessary, tell them the police will handle the matter.
5. Note a description if the passer leaves.
6. Note license numbers of any cars involved.

Annual Convention

SMOKER AND STAG PARTY

Preliminary plans to make this affair the usual good entertainment and opportunity to meet friends and fellow doctors attending the convention have progressed to definite form. It is proposed to obtain entire reservation of an excellent theater and hall in the downtown district with buffet-luncheon facilities in and adjacent to the hall in which entertainment will be provided. The details of the entertainment necessarily can not be completed until a later date, but it is planned to have a high-class variety program of a type which is available from Indianapolis and Chicago sources. The committee in charge of the stag party is making an earnest effort to make this part of the State Convention a feature event.

COMMITTEE ON ARRANGEMENTS OF THE SMOKER AND STAG PARTY

Ben B. Moore, M.D., Chairman

Indiana State Medical Association
Indianapolis, September 23, 24, 25, 1941

DISTRICT MEETING

EIGHTH COUNCILOR DISTRICT

Morning

President, J. S. Robison, M.D., Winchester
Secretary, V. K. Stoelting, M.D., Winchester
Councilor, E. H. Clauser, M.D., Muncie (acting)

WINCHESTER—JUNE 11, 1941

Program

9:00 A. M. Golf at Beeson Club Golf Course.
12:00 Noon. Luncheon—Club House.

Afternoon

1:30 P. M. Fracture Symposium.
Leader—Dr. Byron Nixon, Farmland.
Discussants—Dr. James C. Walker, Dayton, Ohio; Dr. D. F. Cameron, Fort Wayne.

I. Fracture of Surgical Neck of Humerus.
Dr. D. E. Spahr.
Fracture of Shaft of Humerus.
Dr. Arvin Henderson.
Supracondylar Fracture of Humerus.
Dr. L. B. Chambers.

II. Colles' Fracture.
Dr. L. W. Painter.
Fracture of Shaft of Ulna and Dislocation of Head of Radius.
Dr. I. E. Brenner.

III. Subtrochanteric Fracture of Femur.
Dr. V. K. Stoelting.
Fracture of Shaft of Femur.
Dr. L. E. Jordon.
Fracture of Proximal End of Tibia and Fibula.
Dr. R. B. Engle.
Fracture of Distal End of Tibia and Fibula.
Dr. P. W. Sparks.

IV. Fracture of Os Calcis.
Dr. R. A. Voisinet.

V. Fracture of Pelvis.
Dr. A. M. Brenner.

4:30 P. M. *Intermission.*

4:45 P. M. Talks by Indiana State Medical Association Officers and Business Meeting.

Evening

6:30 P. M. Dinner—Club House.

7:30 P. M. Intestinal Obstruction.
Dr. M. M. Zinninger, Cincinnati, Ohio (Assistant Professor of Surgery, University of Cincinnati College of Medicine).
Discussion—Dr. W. D. Gatch, Indianapolis; Dr. L. G. Montgomery, Muncie.

Deaths

Leonard G. Cromer, M.D., of Union City, aged eighty-three, died at his home on April twenty-ninth. Dr. Cromer graduated from the Medical College of Ohio, Cincinnati, in 1890.

* * *

Arthur R. Kresler, M.D., of Rensselaer, aged sixty-three, died on May fifth. Dr. Kresler graduated from the Medical College of Indiana, Indianapolis, in 1902. He was secretary of the Tenth Councilor District in 1940 and was a past president of the Jasper-Newton County Medical Society. Dr. Kresler was a member of the Jasper-Newton County Medical Society, of the Indiana State Medical Association, and of the American Medical Association.

* * *

John A. Lambert, M.D., of Indianapolis, died on April twenty-eighth. He was eighty-one years of age. Dr. Lambert graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1891.

* * *

John W. Phares, M.D., of Evansville, died on April twenty-seventh at the age of seventy-two. Dr. Phares was a graduate of the Kentucky School of Medicine, Louisville, in 1897. He was especially interested in surgery and was a member of the American College of Surgeons. He was a member of the Vanderburgh County Medical Society, of the Indiana State Medical Association, and a Fellow of the American Medical Association.

Alfred P. Rainier, M.D., of Remington, aged sixty-one, died at a Lafayette hospital on April twelfth. He was a graduate of the St. Louis College of Physicians and Surgeons.

* * *

Raymond E. Swope, M.D., of Rockville, died on April twenty-fourth at a Terre Haute hospital. He was sixty-seven years of age. He was a graduate of the Medical College of Indiana, Indianapolis, in 1900.

* * *

Hugh James White, M.D., of Hammond, aged sixty-one, died on April twenty-first. He graduated from the Northwestern University Medical School, Chicago, in 1906, and he was especially interested in surgery. He served as a captain in the Medical Corps during the World War. He was a member of the Lake County Medical Society, was a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

* * *

Estie Eri Hunt, M.D., of Pendleton, aged thirty-nine, died at the Rockville Sanitorium on April seventh following a two-year illness. Dr. Hunt was a graduate of the Indiana University School of Medicine in 1926.

* * *

Nelson J. Shook, M.D., of Corunna, aged eighty, died on March thirty-first. Dr. Shook was a graduate of the Miami Medical College, Cincinnati, in 1890. He had retired from practice about four years ago.

News Notes

Dr. and Mrs. A. T. Harris have moved from Gary to Laguna Beach, California, where he has established a medical practice.

* * *

Dr. E. O. Asher of New Augusta has been chosen president of the Marion County Tuberculosis Association to succeed Dr. Charles J. McIntyre.

* * *

Montgomery county commissioners have appointed Dr. Thomas Z. Ball as coroner to succeed Dr. William M. Mount who has been called to army service.

* * *

Announcement has been made of the marriage of Miss Helen Inez Ferguson of Jeffersonville and Dr. Sterling P. Hoffman, Jr., of Fort Wayne, on April fifth, in Indianapolis.

Dr. L. H. Hopkins has moved from Versailles to Columbus where he has opened offices for the special practice of ophthalmology and otolaryngology.

* * *

Dr. Blanche Bach has been appointed to the medical staff of the Logansport State Hospital.

* * *

Miss Anna Harting of Elwood and Dr. Wayne Elsten of Lapel were married April twenty-sixth, in Bedford. Dr. and Mrs. Elsten will be at home in Lapel after July first.

* * *

Dr. T. A. Dykhuizen of Frankfort spoke on "Relating the Work of the Minister and the Doctor" before the Clinton County Ministerial Association, April seventh.

A contract for preliminary sketches and planning, including the selection of a site, has been awarded to Eggers and Higgins of New York for the Army Medical Library and Museum, Washington, D. C. The estimated cost will be $3,750,000.

* * *

Dr. C. C. Sourwine has been made county health officer of Clay County to succeed Dr. John M. Palm who has been called to Army service.

* * *

Dr. Russell Zimmerman of Detroit, native of Jay County, has gone to Berne, Indiana, where he is associated in practice with Dr. M. L. Habegger.

* * *

Dr. Robert E. Boyle has been appointed to succeed Dr. James Fuelling as assistant surgeon at the Marine hospital in Evansville. Dr. Fuelling has been sent to Honolulu in the naval service.

* * *

Dr. Warren S. Tucker who has been associated in general practice with Drs. J. I. Mitchell and I. E. Huckleberry at Salem for the past two years, is now associated with Dr. C. J. McIntyre in the special practice of tuberculosis in Indianapolis.

* * *

Dr. Fred C. Denny has returned to Madison from Greensburg to continue his special practice in ophthalmology and otolaryngology. Dr. Denny had practiced in Madison for many years before going to Greensburg four years ago.

* * *

A three-story, thirty-bed private hospital will be constructed by Dr. John W. Emhardt, Indianapolis, at South East and Minnesota Streets. The Service Construction Company has been awarded the contract to build the hospital which is planned to cost $100,000. The building is scheduled to be ready for operation about October first.

* * *

Newly elected officers of the Terre Haute Academy of Medicine were installed at a banquet meeting, May second. They are: Dr. John J. Connelly, president; Dr. S. C. Bradley, first vice-president; Dr. Edgar J. Hunt, second vice-president, and Dr. M. C. Topping, re-elected secretary and treasurer. Dr. A. R. Barnes of Rochester, Minnesota, was the guest speaker for the meeting.

* * *

Formal dedication of Silvercrest, the new southern Indiana tuberculosis hospital at New Albany, occurred on Hospital Day, May twelfth. Donald DuShane of Columbus, president of the board of trustees, presided. Speakers were Governor Henry F. Schricker, former Governor M. Clifford Townsend, Sherman Minton, administrative assistant to the President; Dr. Augustus P. Hauss of the hospital board; Rev. Francis Johnson of New Albany; Thurman A. Gottschalk, state welfare administrator, and Dr. J. V. Pace, superintendent of Silvercrest.

Drs. Russell W. Lamb and Charles H. Maly are now associated with Dr. Emmett B. Lamb in Indianapolis.

DIRECTORY OF MEDICAL SPECIALISTS

Specialists eligible for listing in the forthcoming second edition of the Directory of Medical Specialists are urged to fill in and return promptly the questionnaires for biographic data now being mailed out by the publication office. The directory is the official publication of the Advisory Board for Medical Specialties, issued every two years, and listings are limited to those formally certified by any of the fifteen American Boards examining in the medical specialties. The second edition will be ready for distribution early in February 1942 and will include approximately 18,000 names of diplomates certified to January 1, 1942.

DEAN JORDAN DIES

Dr. Charles B. Jordan, aged sixty-two, dean of the School of Pharmacy of Purdue University and one of the leaders in the state and nation in pharmaceutical education, died April 22, 1941, in Chicago, after a short illness following a heart attack.

Dr. Jordan had spent about forty years in his profession, more than thirty of which were on the Purdue faculty. He joined the Purdue faculty in 1910 as professor of pharmaceutical chemistry and director of the School of Pharmacy, which position he held until 1924. In that year, the Department of Pharmacy became a School of Pharmacy and he was made its dean, where he instituted a four-year professional course which ranks second to none.

Dean Jordan was one of the organizers of the Indiana Public Health Council and was active in many forward movements in regard to his profession and to his community. He was the author of a number of scientific publications.

NURSES NEEDED

Months ago the Government began preparation to meet an anticipated need for an unusually large number of nurses both in its military and civil services. The United States Civil Service Commission has announced open continuous examinations to secure nurses despite which there is a continuing acute shortage of nurses for civil service positions.

A large staff of nurses is employed regularly in the civil service, principally in the U. S. Public Health Service, the Indian Service, and the Veterans' Administration. They serve in hospitals and other medical centers throughout the United States and in the Panama Canal Zone and Alaska. Public health nurses carry on field work of community-health care and education, giving home care to the sick, class work in home hygiene, etc., principally in the Indian Service and the U. S. Public Health Service. In the more remote re-

gions these nurses render first aid, and they even give emergency medical treatment in the absence of a doctor. There has been an increased demand for public health nurses under the U. S. Public Health Service in extra-cantonment zones and where large defense industries are located.

Two examinations are now open for receipt of applications. One—Announcement No. 38—under the title of *Public Health Nurse* ($2,000 a year) and *Graduate Nurse* ($1,800 a year) is open for the U. S. Public Health Service and the Indian Service, including Alaska. Applicants are rated on professional training and experience. The other—Announcement No. 100—under the title of *Junior Graduate Nurse* ($1,620 a year), is for the U. S. Public Health Service, the Indian Service, and the Veterans' Administration. This examination now includes a written test.

The need for nurses is immediate. Applications for further information may be made at the office of the Secretary, Board of U. S. Civil Service Examiners at any first- or second-class post office, or write to the U. S. Civil Service Commission, Washington, D. C.

EXAMINATIONS FOR APPOINTMENTS IN THE MEDICAL CORPS OF THE U.S. NAVY

The next examination for appointments as *Assistant Surgeon*, U.S. Navy, (Lieutenant (junior grade), Medical Corps, U.S. Navy), will be held at all major Naval Medical Department activities on *August 11 to 15*, inclusive.. Applications for this examination must be in the Bureau of Medicine and Surgery not later than *July 15, 1941*.

Applicants for appointment as Assistant Surgeon must be citizens of the United States, more than twenty-one (21) but less than thirty-two (32) years of age at the time of acceptance of appointment, and graduates of a class "A" medical school who have completed at least one year of intern training in a hospital accredited for intern training by the council on Medical Education and Hospitals of the American Medical Association.

A circular of information listing physical and other requirements for appointment, subjects in which applicants are examined, application forms and other data pertaining to salary, allowances, etc., may be obtained from the Bureau of Medicine and Surgery, Navy Department, Washington, D. C., upon request.

An examination for appointment as *Acting Assistant Surgeon* for intern training in Naval Hospitals accredited for intern training by the council on Medical Education and Hospitals of the American Medical Association will be held at all major Naval Medical Department activities on *June 23 to 26*, inclusive. Students in class "A" medical schools who will complete their medical education this year are eligible to apply for these appointments, and if successful will receive their appointments approximately two months after the date of the examinations. Students in class "A" medical schools who will have completed their third year of medical education this year are eligible to take this examination, and if successful will receive their appointments on or about July 1, 1942, after they have completed their medical education.

Applicants for appointment as Acting Assistant Surgeon for intern training must be citizens of the United States, more than twenty-one (21) but less than thirty-two (32) years of age at the time of acceptance of appointment. Acting Assistant Surgeons are appointed for a period of eighteen (18) months. After the appointee has served as an intern in a Naval Hospital for twelve (12) months, he is eligible for and may take the examination for appointment as Assistant Surgeon, U.S. Navy.

A circular of information listing physical and other requirements for appointment as Acting Assistant Surgeon, subjects in which applicants are examined, application forms, etc., may be obtained from the Bureau of Medicine and Surgery, Navy Department, Washington, D. C., upon request.

Assistant Surgeons and Acting Assistant Surgeons for intern training are appointed in the rank of Lieutenant (junior grade), Medical Corps, U.S. Navy. The pay and allowances for an officer of this rank total $2,699 per year if he has no dependents, and $3,158 per year if he is married or has dependents.

INDIANA UNIVERSITY NEWS NOTES

The postgraduate course of the Indiana University Medical Center, held annually to give Indiana physicians an opportunity to make intensive reviews of medical developments, was held April 27-May 2. Dr. C. J. Clark was chairman for the postgraduate course which was attended by several hundred physicians from all parts of Indiana.

Night speakers for the conference and subjects which they discussed included: Dr. Walter M. Boothby, professor of experimental metabolism at the University of Minnesota, "Aviation Medicine"; Dr. Louis Schwartz, director of the office of dermatosis investigation of the United States Public Health Service, "Industrial Dermatosis"; Dr. Howard B. Sprague, Harvard University Medical School, "Coronary Diseases"; Dr. Andrew Conway Ivy, Northwestern University Medical School, "Symptoms as They Relate to Physiology," and Dr. Robert C. Jamieson, Wayne University College of Medicine, "Common Skin Disorders in Pediatrics Practice."

Clinics, lectures and demonstrations conducted by members of Indiana University medical school faculty were held throughout each of the five days. Subjects included medicine, obstetrics, rectal dis-

orders, heart diseases, gynecology, genito-urinary diseases, surgery, pediatrics, skin diseases, orthopedics, and ear, nose and throat subjects.

At the postgraduate course, Dr. Sprague said that the golfer who fibs to his doctor as a means of "getting in a little more golf" may be depriving himself of a lifetime of moderate golfing.

"The 'hold-out' heart patient—the individual who won't be frank about his symptoms and family history—comprises one of the chief obstacles to reduction of heart disease victims," Dr. Sprague said.

He pointed out that modern medicine has considerably less chance of detecing early degeneration of the coronary arteries than it does of detecting cancer.

Two Indiana women who sought a means of aiding unfortunate neighbors have provided hospitalization, care and treatment of more than 200 sick and crippled children in the James Whitcomb Riley Hospital for Children of the Indiana University Medical Center. Mrs. Mary D. Cain of Franklin County and Miss California Schell of Owen County provided in wills probated after their deaths several years ago that separate funds should be set up whereby needy children of their home communities should receive medical care at the Riley Hospital. Included among the children treated were a number of extreme cases.

Between July 1, 1939, and Dec. 31, 1940, the period covered by the report, 24 Franklin County children and 78 Owen County children were admitted to the hospital through the aid of the Cain and Schell funds. Franklin County children totaled 660 patient days and Owen County children totaled 1,831 patient days.

Mrs. Cain left a fund of $23,800 and Miss Schell $18,000. It was specified that the income from both funds was to be used to aid needy and sick children.

The following juniors and seniors of the Indiana University school of medicine have been elected to membership in Alpha Omega Alpha, honorary scholastic society: Juniors—Wallace Bash, Warsaw; Margaret Ann Bassett, Thorntown; Otis Bowen, Crown Point; Edgar Hawk, New Palestine; Joe Jewett, Carmel; Griffith Marr, Columbus; Charles F. Martin, Logansport; Sherman Minton, Jr., New Albany; Theodore F. Schlaegel, Jr., Indianapolis. Seniors—Mary Beall, Rushville; Lawrence Cantow, New York; Jack Dick, Huntington; Laura Hare, Indianapolis; John Heubi, Jeffersonville; Joe Humphreys, Cloverdale; William Krieble, Terre Haute; Lawson Smith, Indianapolis; James Warriner, Indianapolis.

Society Reports

New Officers

ADAMS COUNTY MEDICAL SOCIETY:
President, Floyd L. Grandstaff, M.D., Decatur
Vice-president, W. E. Smith, M.D., Decatur
Secretary-treasurer, Myron L. Habegger, M.D., Berne

MONTGOMERY COUNTY MEDICAL SOCIETY:
President, Hawthorne C. Wallace, M.D., Crawfordsville
Secretary-treasurer, J. W. Humphreys, M.D., Darlington

Adams County Medical Society members held a meeting April twenty-second at the Elks Lodge in Decatur. Officers were elected for the ensuing year.

* * *

Bartholomew County Medical Society members met at the Bartholomew County Hospital, Columbus, on April sixteenth. Eleven members attended this meeting.

* * *

Clay County Medical Society members met at the Apple Club, at Terre Haute, on March twenty-fifth. This was a farewell dinner given in honor of Dr. O. L. Wood. Twelve members were in attendance.

On April twenty-second, a farewell dinner was given for Dr. John M. Palm. Twelve members were present.

* * *

Dearborn-Ohio County Medical Society members held a meeting at the Chat'N'Nibble Tea Room, Lawrenceburg, on April twenty-fourth. Dr. Gordon S. Fessler, of Rising Sun, spoke on "Liver and Bile Chemistry and Therapy." Twelve members were in attendance.

* * *

Delaware-Blackford County Medical Society members met at Hotel Roberts, Muncie, on April fifteenth. The speaker of the evening was J. R. Hurley, M.D., of Daleville, whose subject was "The Problem of Nausea and Vomiting and Diarrheas from Bizarre Causes." Thirty-five members attended the meeting.

* * *

Fayette-Franklin County Medical Society members held a meeting at the McFarlan Hotel on April eighth. Guest speaker talked on "Treatment of Burns by Compression." Fourteen members were present.

* * *

Fort Wayne (Allen County) Medical Society members met at the Chamber of Commerce building on April fifteenth. Dr. J. A. Johnston, chief pediatrician of the Henry Ford Hospital, Detroit, was the speaker of the evening.

A meeting was held at the Indiana Hotel, Fort Wayne, on April twenty-second. Dr. E. C. Rosenow, Head of the Department of Experimental Bacteriology, The Mayo Clinic, spoke on "Poliomyelitis,

A Report of Findings in the Fort Wayne Area During the Epidemic of 1940." Fifty-five members were in attendance.

On May sixth, a meeting was held at the Chamber of Commerce building, Fort Wayne. Carl C. Huber, M.D., director of Postgraduate Education in Obstetrics, Indiana State Board of Health, spoke on "Vitamin K in Pregnancy." Forty-seven members were in attendance.

* * *

Fountain-Warren County Medical Society members held a meeting at the Methodist Church, Kingman, on April third. Dr. Norman Beatty, of Indianapolis, gave a paper entitled "Congenital Syphilis." Thomas A. Hendricks, executive-secretary of the Indiana State Medical Association, gave a resume of the work done by the Legislative Committee in the last session of the legislature.

* * *

Gibson County Medical Society members met at the Emerson Hotel, Princeton, on April fourteenth. Garold V. Stryker, M.D., of St. Louis, Missouri, talked on "Common Skin Diseases, Diagnosis and Treatment," and several cases were presented.

* * *

Green County Medical Society members held a meeting at the Freeman County Hospital, Linton, on April seventeenth. The meeting was open to general discussion. Dinner was served by the Freeman County Hospital to the ten members attending the meeting.

* * *

Hamilton County Medical Society members were entertained at the home of Dr. E. D. Havens, at Cicero, on April eighth.

* * *

Indianapolis (Marion County) Medical Society members met at the Indianapolis Athletic Club on April twenty-second. The following subjects were discussed: "Mistakes," by Dr. W. Kelly; "Fads in Medicine," by Dr. T. E. Courtney; "Literature, Non-medical, That is Helpful," by Dr. H. J. Weil; "Drugs Not Commonly Used," by Dr. C. W. Day; and "Consultants," by Dr. E. O. Asher.

At a meeting held in the Indiana University Auditorium on April twenty-ninth, Dr. Howard B. Sprague, of Harvard University, was the principal speaker, his subject being "Coronary Disease."

On May sixth a meeting was held at the Indianapolis Athletic Club. Dr. John M. Cunningham spoke on "Interesting Medical Cases"; Dr. A. F. Weyerbacher on "Double Malignancy of the Kidney"; Dr. J. K. Berman on "Total Gastrectomy of Linitis Plastica"; Captain Frank Mines on "Ludwig's Mediastinitis-Empyema"; and Dr. W. A. Shullenberger on "Erythromelalgia."

The May thirteenth program consisted of the following speakers: Dr. Francis Smith talked on "Intradermal Medication," followed by a discussion by Dr. Phil Kurtz; Dr. William Molt spoke on "Value of Bronchoscopy in the Diagnosis and Treatment of Pulmonary Disease"; and Dr. Richard Appel spoke on "Office Proctology."

* * *

Jasper-Newton County Medical Society members held a joint meeting with the Iroquois County (Illinois) Medical Society on April twenty-second at the Kentland Methodist Church. A fried chicken dinner was served by the ladies of the church. Dr. George K. Fenn, of Chicago, talked on "Peripheral Vascular Disease." Six members of the Jasper-Newton County Medical Society were present.

* * *

Jay County Medical Society members met on May second. Dr. Raymond Henderson, Muncie, spoke on "Diarrheas in Children."

* * *

LaPorte County Medical Society members held a meeting at the Rumely Hotel, LaPorte, on April seventeenth. "Management of Gall Bladder Disease" was discussed by R. W. McNealy, M.D., of Northwestern University, Chicago. Twenty-two members attended this meeting.

* * *

Madison County and Hancock County Medical Societies held a joint dinner meeting, with their wives as guests, at Buckleys, Cumberland, on April twenty-first. Dr. David A. Boyd, of Indianapolis, addressed the audience on "Psychiatric Trends in Modern Books and Literature." Ninety-seven members and guests attended this meeting.

* * *

Miami County Medical Society members met at the Miami County Hospital, Peru, on April twenty-fifth. Dr. R. A. Solomon, of Indiana University, spoke on "Chemotherapy—Sulfonamide Drugs," followed by a discussion by the members present. Motion picture films were shown on "Cholecystectomy" and "Hernioplasty." Fifteen members were present.

* * *

Muncie Academy of Medicine members held a meeting at Hotel Roberts, May thirteenth. The principal speaker was Dr. Reed M. Nesbit, of the University of Michigan, who spoke on "The Use of Hormone Therapy in Various Sexual Deficiencies in the Male."

* * *

Northeastern Indiana Academy of Medicine members met at the Sacred Heart Hospital, Garrett, on April twenty-fourth. Dr. Clyde G. Culbertson, of Indianapolis, spoke on "How the Clinical Laboratory Can Help the General Practitioner."

* * *

Parke-Vermillion County Medical Society members held a meeting at Clinton on April sixteenth. Don Bowers, M.D., of Indianapolis, gave a paper entitled "Medical and Surgical Aspects of Physical Therapy." Seven members were in attendance.

* * *

Perry County Medical Society members held a special meeting April twenty-ninth. Plans were

discussed and adopted for the proposed clinic which will soon be established.

* * *

Randolph County Medical Society members held a meeting April seventh at the Randolph County Hospital in Winchester. Dr. Ramon Henderson, of Indianapolis, spoke on "Diarrhea in Children."

* * *

Shelby County Medical Society held a meeting at Shelbyville on May seventh. Dr. Arthur B. Richter, of Indianapolis, spoke on "Coronary Artery Heart Disease."

* * *

Tri-County Medical Society members met at Dewey's Cafe on April twenty-second. Following the dinner a paper was read by Dr. D. D. Geiger, of Bloomington, on "Middle Ear Disease."

* * *

Union District Medical Association members held their 146th semiannual meeting at Rushville on April twenty-fourth. Dr. Robert L. Glass, of Indianapolis, spoke on "Diagnosis of Various Interesting Neurological Disturbances"; Dr. C. I. Stafford, of Oxford, Ohio, lectured on "Evaluation of Catarrhal Vaccine, Orally"; and Dr. James H. Stygall, of Indianapolis, talked on "Tuberculosis in Young Adults."

* * *

Carroll County Medical Society members held a meeting at Camden on May eighth. Dr. Nelson H. Prentiss, of Fort Wayne, spoke on "Electro Therapeutics."

* * *

Elkhart County Medical Society members held a dinner meeting on May eighth at Hotel Goshen. Dr. A. S. Giordano, of South Bend, and Dr. D. D. Todd, of Elkhart, spoke on "Post-Operative Lung Complications." Forty members were in attendance.

* * *

Gibson County Medical Society members were hosts to the Old First Congressional District Medical Society at the Princeton Country Club on May eighth. A golf tournament was held in the afternoon and a banquet in the evening. Dr. C. J. Clark, associate professor of cardiology of the Indiana University School of Medicine, was the principal speaker, his subject being "Hypertension." Seventy-eight physicians were present.

* * *

Marshall County Medical Society members met for a noon meeting at the Hi-Way Inn in a joint conference session with the Kosciusko County Association. A talk was given by Dr. S. E. Bechtold of South Bend.

Annual Convention

Indiana State Medical Association

Indianapolis, September 23, 24, 25, 1941

INDIANA STATE MEDICAL ASSOCIATION

THE EXECUTIVE COMMITTEE

May 4, 1941.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; A. M. Mitchell, M.D.; M. A. Austin, M.D., F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Minutes of the meeting of March 16, 1941, approved upon the motion of Dr. Mitchell seconded by Dr. Weyerbacher.

The statements of receipts and expenditures for March and April for the association committees and THE JOURNAL were approved.

Membership Report:

Number of members May 3, 1941 (105 hon. members; 106 in service)	3,017
Number of members May 3, 1940	3,010
Gain over last year	7
Number of members Dec. 31, 1940 (90 hon. members)	3,192

Treasurer's Office

Dr. Weyerbacher reported that he had purchased for the state association $6,000 in bonds, $3,000 for the medical defense fund and $3,000 for the general fund.

1941 Annual Session at Indianapolis

Local arrangements progressing. Meeting of entertainment committee to be held at headquarters office Monday, May 5. Short notices are being carried in THE JOURNAL from time to time from the various local committee members.

Commercial exhibit.

a. 44 exhibit spaces sold; 5 spaces to be sold.

Reporting of House of Delegates' meetings. Upon the motion of Dr. Romberger, seconded by Dr. Mitchell, the committee went on record favoring the use of stenographers at the House of Delegates' meetings rather than the use of a dictaphone machine which would necessitate the delegates arising from their places and speaking through a microphone. It was felt that this might keep some men from speaking who would otherwise speak before the House of Delegates.

Legislative, Legal and Social Security Matters

National

(1) *Legislative bulletins from A. M. A.* Legislative bulletin No. 3 from the A. M. A. brought to the attention of the committee.

(2) *Latest information in regard to medical deferments.* Information received that medical students and interns are to be deferred.

(3) *A. M. A. trial.* Attention of the committee called to the editorial in THE JOURNAL entitled "Poised for the Kill."

(4) *Medical Administration Service, Inc.* New name for cooperative health movement headed by Kingsley Roberts. Officers include Cabot, Michael Davis, Peters, Sigerist and Winslow.

(5) Article from New York *Times* entitled

"Medical Trade Unions Foreseen" brought to the attention of the committee.

Local

Tuberculosis tests for school teachers and hearing aid legislation. The executive secretary was to call on Clement T. Malan, the new superintendent of Public Instruction, and confer with him in regard to these two subjects. Dr. McCaskey is to attend the Indiana Speech Correction Association meeting at Gary on May 10 and talk upon H. B. 512, the hearing aid bill.

Organization Matters

Liaison Committee of the Division of Services for Crippled Children. Group composed of Doctors Barclay, Weinstein, Sensenich and Mettel, and Mr. William R. Sterrett, administrative assistant, and Miss Morris, secretary, Division of Services for Crippled Children, State Department of Public Welfare, had luncheon with the Executive Committee. Preceding this meeting Linn W. Curtis, executive secretary of the Indiana Society for Crippled Children, made a report upon the aims, purposes and functioning of that organization. As a result, the Liaison Committee of the Division of Services for Crippled Children of the state medical association presented the following statement concerning this society:

> "Examination of the statement of the objectives of the Indiana Society for Crippled Children as presented by the executive secretary of that society discloses that they are similar to those of the Department of Public Welfare and the Division of Vocational Rehabilitation of the State Department of Public Instruction.
>
> "Present activities of the official public agencies and plans in process of development include all the objectives of the Indiana Society for Crippled Children.
>
> "The Advisory Committee (Liaison Committee of the Division of Services for Crippled Children) recommends that the Department of Public Welfare welcome the cooperation of all interested citizens and groups. However, it would seem unfortunate if private agencies are created which duplicate functions already provided by public agencies established for these express purposes."

Upon the motion of Dr. Mitchell, seconded by Dr. Romberger, this statement was approved by the Executive Committee.

Physician on Industrial Board. Dr. C. J. Clark and Dr. Norman Beatty are assigned to discuss this question.

Physical therapy questionnaires. Dr. Edwin L. Libbert, chairman of the Committee on Physical Therapy, reports that "Of the 3,134 questionnaires sent to physicians in Indiana, replies have been received from 1,288, which is 41%; 17 of this number expressed definite opposition to Physical Therapy; 167 had no comment to offer, and the remainder were favorable in their reaction. Thirty-six (36) replies were received from county secretaries, which is a total of 43%. Harrison county is opposed to a permanent standing committee because it would lower the standard of medicine; Perry county is opposed because 'Usually an establishment of such a committee leads to distinct specialization'; Henry county has no reaction, feeling that this procedure depends on administration and not on opinion." This is a preliminary report and a complete report will be made later.

Sub-Committee to Study Maternal Morbidity and Mortality Rates for Indiana. Dr. E. O. Asher made a preliminary report on this committee. He is to make a written statement concerning this report which is to be sent to the members of the Executive Committee for their suggestions, corrections, comments and approval.

New appointments on Committee on Mental Health and M-Day Committee. Resignation of Dr. H. J. Norton from Committee on Mental Health and M-Day and Veterans' Affairs Committee of the Indiana State Medical Association received. Dr. Mitchell has appointed Dr. Harry C. Buhrmester of Lafayette to serve on the Mental Health Committee and Dr. W. M. Miley of Anderson to serve on the M-Day and Veterans' Affairs Committee.

Committee on Conservation of Vision. Advertisements and correspondence in regard to the House of Vision brought to the attention of the committee. The committee felt that this was a matter that should be handled through the regular Committee on Conservation of Vision.

Article on "Morale" for National Woman's Auxiliary publication. R. L. Sensenich, M.D., member of the Board of Trustees of the American Medical Association, has written an article upon "Morale" for the National Woman's Auxiliary Bulletin. This was brought to the attention and received the hearty approval of the Executive Committee of the state medical association.

Inter-Professional Health Council. Dr. L. H. Allen of Bedford has accepted an appointment on the Committee on Indiana Inter-Professional Health Council.

Invitation received from the State Chamber of Commerce for the state association to become a member. Membership costs $100 a year. The committee deferred this matter for further consideration and discussion.

State Board of Health

Material in regard to the formation of a health council in Monroe county brought to the attention of the committee. This was referred to Dr. M. A. Austin for study with the suggestion that he report back concerning it at the next meeting of the Executive Committee.

Group Hospitalization and Medical Service Plans

Ohio State passed medical service plan over opposition of the Farm Bureau and the C. I. O.

Medical Economics

N. Y. A. Report made that in this state apparently the National Youth Administration set-up is progressing without a great amount of unfavorable reaction on the part of the profession. Report made, however, that the profession does not understand that the physical examination end of the N. Y. A. program is for the out-of-school groups. Newspaper comment indicates that there may be a drastic reduction in funds allotted N. Y. A. groups. Report also made that educators of the country would like to have this placed in the hands of educators and under the control of the teaching profession.

Industrial health. Bulletin No. 7 from the Council on Industrial Health of the American Medical Association brought to the attention of the committee. Also the joint report of the Connecticut State Medical Society and the Manufacturers Association of Connecticut entitled "Conservation of Man Power" brought to the committee's attention. The committee suggested that this report be sent to Dr. C. V. Rozelle, chairman of the state Committee on Industrial Health, with the suggestion that contact be made with the Manufacturers Association and ways and means planned for a study here in Indiana similar to the Connecticut state project.

Health and Accident Insurance Policies for Physicians. Various insurance companies are presenting plans to write group health and accident insurance policies for the physicians of Indiana. The committee was of the opinion that if such group policies are to be taken they should be taken through local county medical societies and not through the state association. It was felt that such action should be an individual action of the county medical societies and not a statewide action. The only official recognition that could be given these insurance companies from the standpoint of the state association would be through an advertisement in THE JOURNAL; that is, these companies would be allowed to advertise in THE JOURNAL after their policies are analyzed and the responsibility and background of the companies are determined by the Executive Committee in the case of each company.

Medical Relief

Action has been taken by the Indiana State Sanatorium at Rockville to the effect that a certificate of indigency is required at that sanatorium before out-patient examinations are held. This comes as a result of the complaint which was received in regard to patients being received at tuberculosis hospitals without approval or knowledge of the patients' physicians. The committee feels that other tuberculosis sanatoria of the state might consider following the same procedure.

University Hospitals have supplied Lake county with reports as requested.

March report on WPA cases brought to the attention of the committee.

State Board of Medical Registration and Examination and Cult Study Committee

Dr. H. C. Ruddick of Evansville appointed to take the place of Dr. J. T. Oliphant of Farmersburg who resigned from the State Board of Medical Registration and Examination.

Refugee physicians. Bulletin received from the Illinois State Medical Society that entrance of refugee physicians in Illinois has been limited by the Illinois State Department of Registration and Education.

Socialized Medicine

Merom situation. Refugee physician who had passed requirements in Indiana and who desired to locate in Indiana referred by headquarters office to Merom.

Socialized medicine study by League of Women Voters. The Executive Committee reviewed the report made by the Bureau of Publicity of the state medical association in regard to the study program of the League of Women Voters on "Federal Responsibility for Public Health and Health Insurance." The Executive Committee agreed with the Bureau of Publicity that the kit contains an overbalance of material favoring socialized medicine and after discussing the matter with Dr. Sensenich, it was suggested that Dr. Homer Hamer, chairman of the Bureau of Publicity, and Dr. Mitchell, president, present this subject to the Board of Trustees of the American Medical Association at its meeting in Cleveland. At the suggestion of Dr. Sensenich a letter is to be written to Dr. Olin West, secretary of the American Medical Association, requesting that Dr. Mitchell and Dr. Hamer be heard by the Board of Trustees. The committee feels that this is a very important matter and one which should receive the particular and special attention of the proper groups of the American Medical Association.

Military Preparedness

Report made that the county society secretaries at a meeting held in Indianapolis at the time of the University postgraduate course, went on record approving the publication of an article in THE JOURNAL, reprints of which can be sent to the public press. This article is to show that the health of the people is not as bad as would appear because of the fact that a great many men are refused admission to the Army. This editorial is also to show that the physicians of the state of Indiana who are serving on the Selective Service Boards are doing an outstanding job. Simply because a man is turned down by the induction board of the Army after passing the Selective Service Board does not mean that the men on the Selective Service Boards are not doing a good job of examining.

Information in regard to possible changes in Army examination procedures which will alleviate the situation discussed by the committee.

Letter received from H. D. Corbusier, colonel, Medical Reserve Corps, stating that the Indiana State Medical Association is outstanding in its program on medical preparedness.

A.M.A. questionnaire on civilian needs. 82 counties have answered questionnaire; 10 counties yet to answer.

Shortage of doctors. Reports coming in to headquarters office indicate that some communities are really getting short of doctors.

Philadelphia program for examining selectees. Experiment made in Philadelphia of having selectees examined by civilian members of the medical profession. The group which passes this first rather cursory examination is then to be examined immediately by the Army induction board and either inducted into service or turned down because of any physical disability. This will avoid the necessity of having a man take two separate physical examinations and after being accepted by one group of physicians, being rejected by another group, which causes embarrassment both to the individual and to the group of civilian physicians making the examinations.

National defense program in Indiana. Letter received from John W. Ferree, M.D., director of the State Board of Health, stating that as a member of the Administrative Defense Council of Indiana he desires to express appreciation for the work which the Indiana State Medical Association has done in regard to the national defense program. Dr. Ferree further states in his letter:

> "From time to time it will be necessary to call on you for assistance in marshalling our medical resources to meet the many needs that it is foreseen may arise. There will, no doubt, be times when the resources of the Administrative Defense Council can be helpful to the State Medical Association. It is respectfully suggested that these reciprocal relationships between the State Medical Association and the official state defense agency be handled through the Secretary of the State Board of Health. Please be assured of my desire to serve the best interests of all who will contribute to the maintenance of the public health."

The Executive Committee suggests that Dr. Ferree be invited to attend the next meeting to discuss further national defense needs from the standpoint of the medical profession.

Resolution from the Whitley County Medical Society, copies of which were sent to officials of the Army and the American Medical Association, complaining against the practice of making physical examinations free of charge, brought to the attention of the committee.

Farm Security Administration

Letter received from A. A. Thompson, M.D., of Tyner, Indiana, in regard to the relationship of the Farm Security Administration with the local county medical society.

Malpractice

Malpractice survey. Material returned by Albert Stump with suggestions. A check is to be made with each medical defense company in regard to that part of the survey that has to do with that company and then the report is to be printed in the July issue of THE JOURNAL.

Uncollected bills and medical suits. Albert Stump expressed the opinion that according to the Indiana law a doctor may sue a patient for an uncollected bill after two years have passed since the services were rendered the patient and that patient can not bring a counter suit against the doctor for malpractice because of the statute regarding limitations in malpractice cases that was passed at the last session of the legislature.

BUREAU OF PUBLICITY

April 14, 1941.

Present: H. G. Hamer, M.D., chairman; F. W. Taylor, M.D., and T. A. Hendricks, executive secretary.

Minutes of the meeting of March 31, 1941, approved for signature.

The following releases were approved for publication:

Saturday, April 19—"Indiana Medical Profession and Defense."
Saturday, April 26—"Child Health Day."
Saturday, May 10—"National Hospital Day."

Reports received upon the following medical meetings:

April 1—Twelfth District Medical Society, Fort Wayne. "Economic and Legislative Problems Facing the Profession." (150 present.)
April 3—Fountain-Warren County Medical Society, Kingman. "Medical Legislation and National Situation." (35 present.)
April 8—Woman's Auxiliary to the Tippecanoe County Medical Society. "Where Do We Go from Here?" (40 present.)

Requests for speakers:

April 16—Parke-Vermillion County Medical Society, Clinton. "Some Medical and Surgical Aspects of Physical Therapy." Speaker obtained.
April 18—Cass County Medical Society, Logansport. "Pediatrics." Speaker obtained.

The bureau discussed the study that the National League of Women Voters is to make in regard to "Federal Responsibility for Public Health and Health Insurance." A member of the League of Women Voters appeared before the bureau and discussed the purposes of this study. The bureau approved with corrections the publication in THE JOURNAL of an editorial concerning the proposed study and suggested that letters be sent to those in charge of the study, calling their attention to the fact that some pamphlets might be added to the kit giving the medical profession's side of the subject of health insurance, as it seems that most of the material in the kit is in favor of some form of government controlled health insurance.

CINCINNATI DERMATOLOGICAL SOCIETY MEETS IN INDIANAPOLIS

On May 7, 1941, the Cincinnati Dermatological Society met in its monthly meeting as the guest of the Indianapolis group of dermatologists.

A clinic was held in the outpatient department of the Indianapolis City Hospital through the kind invitation of Dr. Charles Myers. At this meeting Dr. George Bowman demonstrated the continuous method of arsenical administration in the treatment of early syphilis. Dr. Don Bower presented a group of neoplasms. Dr. Harry L. Claasen of Cincinnati and Dr. Adolph Loveman of Louisville exhibited an interesting group of Kodachromes of different dermatological entities. Dr. William Hendricks and Miss Day presented charts showing venereal control methods in the city, and the local group of dermatologists showed some fifteen cases of interesting skin conditions.

Following the clinic a dinner was held at the Spink-Arms Hotel followed by a discussion of cases. Dr. Richard Weiss, president of the American Academy of Dermatology and Syphilology, acted as guest discussant. The meeting was attended by forty men.

JOHN ERIC DALTON, M.D.,
Indianapolis.

WOMAN'S AUXILIARY

President—Mrs. C. L. Bock, Muncie
President-elect—Mrs. E. O. Nay, Terre Haute
Corresponding Secretary—Mrs. T. R. Owens, Muncie
Treasurer—Mrs. M. W. Hillman, South Bend

Auxiliary News

Mrs. H. A. Ray, member of the *Allen County Auxiliary,* welcomed guests at the first mass meeting in observance of Cancer Control Month sponsored in April by the Woman's Field Army for the Control of Cancer. Eight prominent physicians were guest speakers on the program and presented a symposium on various kinds of cancer, treatment and diagnosis. The meeting was open to the public.

April was cancer control month throughout the nation, by special act of Congress and annual proclamation of the President of the United States, the Governors of the various states and mayors of hundreds of cities. The 1941 slogan is "Health Defense is National Defense." Mrs. Isaac Born, Indiana commander of the Field Army, has developed splendid leadership throughout the state.

Twenty members attended a luncheon meeting of the Woman's Auxiliary to the *Delaware-Blackford County* Medical Society held Tuesday, April 15th at Ball Memorial Hospital.

Following the business session and sewing for the hospital, Dr. L. G. Montgomery, pathologist at

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:
"Knowing that there is such a competent organization prepared and ready to protect me against unscrupulous and designing persons gives me a feeling of confident assurance that adds greatly to my peace of mind."

THE MEDICAL PROTECTIVE COMPANY
OF
FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness
INSURANCE

For ethical practitioners exclusively
(56,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $33.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $66.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $99.00 per year

39 years under the same management

$2,000,000.00 INVESTED ASSETS
$10,000,000.00 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

Ball Memorial Hospital, gave an interesting talk on "Cancer" which was in keeping with cancer control week. His talk was supplemented with slides.

The *Madison County Auxiliary* had Mrs. C. L. Bock, State President of the Woman's Auxiliary to the Indiana Medical Association, as guest speaker at the April meeting. Mrs. Bock gave a short talk and complimented the members on the Guild program. The members of the Madison County Auxiliary are proud of the success of their program in which they sponsored a drawing for a prize of $300 or a trip to Mexico, or a trip to California, the winner to make his own choice. The funds raised in this way were used for Guild purchases of various supplies and equipment for St. John's Hospital.

The *Auxiliary to the Northeastern Indiana Academy of Medicine* held their April meeting at the Garrett Hotel in Garrett, April 24th. There were twenty-four members and guests present. The speaker was Mr. H. J. Jordan whose subject was "Woman's Place in the Defense Program."

The *Tippecanoe County Auxiliary* has been experimenting with a procedure which they would like to pass on to other auxiliaries. At each meeting they have a "news flash" of up to the minute news pertaining directly or indirectly to the medical world. This tends to encourage the members to watch for news items to report, and is a step toward an informed public. They are confining their programs to ones of an educational nature and letting the social part be secondary. All members of the Auxiliary are urged to join organizations doing any work in a medical way so that they will know that the programs are not adverse to the Medical Association's interests.

Monday, March the tenth, was chosen as Public Relations Day by the *St. Joseph County Auxiliary.* Dr. W. W. Bauer, Director of Bureau of Health Education and Associate Editor of *Hygeia*, was guest speaker at a luncheon given in the Oliver Hotel to members and guests. The subject of his address was "Cosmetics." At 8:30 a.m., Dr. Bauer spoke on health problems before the general assembly of high school students in Central Senior High School. Fifteen hundred were present.

The chief interest this year among members has been assistance to the hospitals and the work of the Red Cross. We feel that this is our time to prove our worth to the medical profession, and study for the improvement of the community in which we live.

REMEMBER THE DATES FOR THE
ANNUAL CONVENTION
SEPTEMBER 23, 24, 25, 1941
IN INDIANAPOLIS

Books

BOOKS REVIEWED

SURGICAL ANATOMY OF THE HEAD AND NECK. By John Finch Barnhill, M.D., F.A.C.S., LL.D., formerly Professor of Otolaryngology in the Indiana University School of Medicine, Emeritus Professor of Surgery of the Head and Neck, formerly Chief of the Department of Head and Neck surgery in the Indiana University Hospitals, and Honorary Professor of Anatomy, University of Southern Caliornia School of Medicine; and by William J. Mellinger, M.C., Associate Professor of Anatomy, University of Southern California School of Medicine, Chief of Department of E.E.N.T., Cottage Hospital, Santa Barbara, and Otolaryngologist, Santa Barbara General and St. Francis Hospitals, Santa Barbara. Second Edition, rearranged and revised with many new illustrations, several in colors. 773 pages. Introduction by Paul S. McKibben, Professor of Anatomy, University of Southern California School of Medicine. Fabrikoid binding. The Williams & Wilkins Company, Baltimore, 1940.

The introduction is a nice tribute to the author and his work, by Paul S. McKibben, Professor of Anatomy of Southern California School of Medicine.

The author has the happy faculty of writing and talking about scientific subjects in a clear and interesting manner. This book holds the reader's attention and is as readable as a novel. He combines the anatomy, physiology, pathology and surgery of the head and neck in a concise and connected picture. The reader feels that the master is speaking in the intimacy of the laboratory class room. The illustrations are abundant, accurate, and well done; many of them are reproduced in color. Throughout the book the author points out the possible anomalies, the pitfalls to avoid, and the proper procedure to insure the best results.

The dissection course is followed, starting with the skin and, in turn, through the neck and head as each structure by natural relationship leads to the next.

An excellent chapter on local anesthesia is included.

The technique of all operations is given in minute detail as well as the diseases and physiology of the part under discussion.

BOOKS RECEIVED

ESSENTIALS OF DERMATOLOGY. By Norman Tobias, M.D., Senior Instructor in Dermatology, St. Louis University; Assistant Dermatologist, Firmin Desloge and St. Mary's Hospitals; Visiting Dermatologist, St. Louis City Sanitarium and Isolation Hospital. 497 pages with 143 illustrations. Fabrikoid. Price $4.75. J. B. Lippincott Company, Philadelphia, Pa., 1941.

* * * *

PEDIATRIC BIBLIOGRAPHY. Monographs of the Society for Research in Child Development, Volume VI, No. 1 (Serial No. 27). By A. Graeme Mitchell of the Department of Pediatrics of the College of Medicine, University of Cincinnati, and The Children's Hospital Research Foundation, Cincinnati, Ohio. 119 pages. Paper binding. Price 75c. Society for Research in Child Development, National Research Council, Washington, D. C., 1941.

* * * *

MILK SICKNESS CAUSED BY WHITE SNAKEROOT. By Edwin Lincoln Moseley, Professor Emeritus of Biology, State University, Bowling Green, Ohio. 171 pages with 3 illustrations. Paper binding. Price $1.00. Published jointly by The Ohio Academy of Science and the author, Bowling Green, Ohio, 1941.

(Continued on page xxiv)

For the local Treatment of Acute Anterior **Urethritis**

(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE*

Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae.[1] An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., **23**, 201 (March), 1939.

A complete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

It's Time to Start

Fall Hay Fever Testing

With Your Pollen-Pak!

As you know, Doctor, Fall Hay Fever is prevalent in August and September. You will find the basic Fall Hay Fever testing irritants most common to your area in Barry's Pollen-Pak.

Barry's Pollen-Pak contains 20 irritants in 20 individual capillary tubes, with an individual patient report card enclosed. Fill out your test results on the report card. Then, based on the individual case history and your skin test reactions, Barry will prepare an individual desensitization set. For further details, and informative literature, write the Barry Allergy Laboratory, 220 Bagley, Detroit, Mich.

COMMERCIAL ANNOUNCEMENTS

SUBSCRIBE to the **Bulletin,** the official publication of the Woman's Auxiliary to the American Medical Association. Issued quarterly. One dollar per year. Send subscriptions to Mrs. H. E. Christenberry, Highland Drive, Knoxville, Tennessee, or to the Indiana **Bulletin** chairman, Mrs. O. M. Deardorff, 117 Granville Avenue, Muncie, Indiana.

FOR SALE: Practice and office equipment—suddenly deceased physician. Located in large industrial center of Indiana. Long established practice with excellent hospital facilities. No real estate involved. An excellent opportunity for an active, A-1 physician. Address Box S-5, THE JOURNAL of the Indiana State Medical Association, 1021 Hume Mansur Building, Indianapolis.

OPENING FOR PHYSICIAN at Forest, Indiana, in the place of the late Dr. F. P. Aubuchon.

FOR SALE—Complete equipment and instruments for general practice. Diathermy and heat therapy lamps. Address Mrs. J. Louis Fichman, 3320 Carrollton Avenue, Indianapolis. Telephone: Talbot 6559.

EXTRA VALUE!

Through your Medical Society you can obtain wide open Sickness and Accident Protection at a worth-while saving.

Consider these advantages which are available to you provided you accept them while you are still in good health.

1. EVERY TYPE OF DISABILITY COVERED.
2. PROTECTION MAY CONTINUE TO AGE 70.
3. RATES DO NOT INCREASE WITH AGE.
4. NO INDIVIDUAL CANCELLATION.
5. NO MEDICAL EXAMINATION.

Your coverage is handled as a confidential matter between the agent and yourself.

JAMES R. GEIGER

Lincoln Bank Tower — Fort Wayne, Ind.

— representing —

Commercial Casualty Insurance Company
Newark, N. J.

BOOKS

(Continued from page xxii)

CARDIAC CLASSICS. A collection of Classic Works on the Heart and Circulation with Comprehensive Biographic Account of the Authors. Fifty-two Contributions by Fifty-one Authors. Compiled by Fredrick A. Willius, M.D., M.S. in Medicine, Chief, Section of Cardiology. The Mayo Clinic; Professor of Medicine, The Mayo Foundation for Medical Education and Research, The Graduate School, The University of Minnesota; and by Thomas E. Keys, A.B., M.A., Reference Librarian, The Mayo Clinic. 858 Pages with 127 illustrations. Cloth. Price $10.00. The C. V. Mosby Company, St. Louis, 1941.

* * * *

THE ESSENTIALS OF APPLIED MEDICAL LABORATORY TECHNIC. Details of How to Build and Conduct an Office or Small Hospital Laboratory at Small Cost. By J. M. Feder, M.D., Director of Laboratories and Allergic Service, Anderson County Hospital, Anaerson, S. C. Blood and Plasma Transfusion, by John Elliott, Sc.D., Pathologist Rowan General Hospital, Salisbury, N.C. 241 pages. Profusely illustrated with two plates in colors. Fabrikoid. Charlotte Medical Press, Charlotte, N. C., 1940.

ABSTRACT

THE PREGNANT WOMAN

The pregnant woman has need, in most instances, of modifying her diet when she arrives in this physiologic state, report J. H. Musser, M.D., and W. A. Sodeman, M.D., of New Orleans, Louisiana, in *The Journal of the Michigan State Medical Society* for April, 1941. Likewise, it is equally necessary that the diet be watched carefully during the period of lactation. The caloric intake must be increased, adequate protein and minerals must be taken by mouth and particular attention should be paid to vitamins. The increased demands of the fetus plus the increase in basal metabolic rate indicates need of a greater number of calories than for the normal individual. When nursing, the production of the milk which is fed to the baby is responsible for the loss of 700 calories for each 1,000 c.c. of milk. Mineral requirements are increased during pregnancy. Calcium, phosphorus, iron, iodine and other minerals must be supplied the fetus. Many diets are adequate under normal circumstances. During the period of the puerperium the diet is not sufficient and it should be supplemented by a plentiful intake of foods containing these particular minerals. The same generalization applies to vitamins. The diet ordinarily adequate to maintain good health in the non-pregnant person will not be sufficient for the pregnant woman. Therefore, the diet should be supplemented by foods rich in vitamins or by vitamin concentrates.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASES

Monthly Report, March 1941

Diseases	*Mar. 1941*	*Feb. 1941*	*Jan. 1941*	*Mar. 1940*	*Mar. 1939*
Tuberculosis	104	51	84	188	132
Chickenpox	794	538	422	404	406
Measles	3,791	1,107	277	64	56
Scarlet Fever	898	661	468	1,179	817
Smallpox	8	3	8	15	198
Typhoid Fever	7	7	8	4	4
Whooping Cough	123	35	81	205	128
Diphtheria	89	49	51	41	55
Influenza	259	412	1,547	10,318	1,287
Pneumonia	122	139	146	88	159
Mumps	272	209	132	1,688	247
Meningitis	9	3	5	7	3
Undulant Fever	2	3	1	5	3
Rubella	158	0	0	0	0
Septic Sore Throat	1	0	0	6	0

ABSTRACTS

THE VITAL ROLE OF PSYCHIATRY IN NATIONAL DEFENSE IS SHOWN

Importance of Recognition and Treatment of Mental Disorders Is Pointed Out in Symposium in "War Medicine"

The vital role that psychiatry will play in national defense, particularly as it applies to the armed forces, is pointed out in a symposium on the psychiatric aspects of military medicine in the March-April issue of *War Medicine*, published by the American Medical Association, Chicago, in cooperation with the National Research Council, Washington, D. C.

Three approaches to the problems involved are contained in the symposium. Samuel Adams Cohen, M.D., New York, Colonel, Medical Research, U.S. Army, discusses "The Army Medical Officer Looks at Psychiatry." A paper by Karl M. Bowman, M.D., New York, Lieutenant Commander, Medical Corps, U.S. Naval Reserves, deals with "Psychiatric Examination in the Armed Forces." A. Kardiner, M.D., New York, discusses "The Neuroses of War."

The magnitude of the problem so far as the armed forces are concerned is pointed out by Commander Bowman who says, "In the last draft, during the World War, approximately 2 per cent of the candidates were excluded from military service because of nervous disease or defect. Later, about 3 per cent more were discharged because of similar disabilities. With these figures in mind, it is apparent that approximately 5 per cent of those chosen under the present draft either will have some neuropsychiatric disability at the time of induction or will show it shortly thereafter. The problem, therefore, from the standpoint of psychiatry, is to pick out and exclude this 5 per cent. With this in mind the Selective Service System has held conferences with the leading psychiatrists in the United States to prepare a program which will prevent the induction of those who from a mental standpoint are unsuitable."

A warning regarding the safeguarding of those rejected by the Selective Service System is made by the commander, who says that "the present attitude of the press in talking about keeping out men who are 'wacky' is undesirable and puts these men under a certain stigma when they are returned home or when they are rejected." He points out that it must be constantly emphasized that the Selective Service is a draft of the total man power and the assigning of men to those duties for which they may be best fitted. There are many competent men in civilian life who are well adjusted but who do not have the qualities desirable for good soldiers and it must be seen to that civilian morale is not unfavorably affected in carrying out the rejection of unsuitable candidates.

The far reaching benefits of a sound psychiatric program for the armed forces are pointed out by Colonel Cohen who says that "In his efforts to promote better mental hygiene among the military command, the army medical officer is automatically laying the ground work for these preventive measures to take root also among the civilian population. Just as after practically every military campaign the army personnel have carried back with them to civilian life a definite and practical knowledge of the prevention of disease and the preservation of life, so the present program of military training will be instrumental in providing the new soldiers with concepts of good mental hygiene which will be carried into practice when they return to their civilian status. Moreover, as each army medical officer returns to civilian life he too will automatically become an advocate of and a worker for mental hygiene in the community.

"In regard to the application of general measures for the prevention of mental ills, the regulations and formulas observed for the prevention of accidents and organic diseases may well be utilized. At the same time, the army medical officer is well aware that all immunity is relative, and that, among other factors, exhaustion, fatigue, heat, cold, hunger, thirst, strain, stress and unhygienic surroundings can and do precipitate diseases of the mind as well as of the body even in persons who are mentally and physically sound. As the mind and body are bound together, symptoms reflecting disturbances of each often occur practically at the same moment. Hence the general prophylaxis of mental breakdown lies in the direction of correcting or staving off those forces which tend to lower the breaking point of the resistance of the mind and of the body.

"The making of a good soldier should not be left to chance. No good comes of the too common and practically fatal error of relying on the emotional response of the multitude to defend itself against aggression.

"A good soldier is the product of a combination of many and variable circumstances which primarily are dependent on scientific and studied efforts to condition the recruit by such means as continual and systematic military drills and exercises and by use of the most modern equipment and implements of warfare. Only as the result of well directed effort will the personnel attain the necessary knowledge, skill, precision, teamwork, discipline and experience to build up a military organization capable of engaging and defeating the enemy."

The importance, aside from the military aspect, of assuring that only those capable of measuring up to the requirements of good soldiers are inducted into the army is pointed out by Commander Bowman who says that since the close of the World War, the Veterans' Administration has spent approximately $1,000,000,000 in looking after claimants who have nervous or mental trouble due to military service in that war. "It has been estimated," he says, "that every man who breaks down while in service will cost the United States at least $30,000. From a purely financial point of view, it will pay to make a careful psychiatric examination of all draftees. Thirty per cent of the patients now being returned to Canada

ZEMMER

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, Etc.
Guaranteed reliable potency. Our products are laboratory controlled.
Write for General Price List.

THE ZEMMER COMPANY IN 6-41
Chemists to the Medical Profession
Oakland Station Pittsburgh, Pennsylvania

ADVERTISERS IN THIS ISSUE

Barry Allergy Laboratories, Detroit xxiii
Borden Company xi
Cincinnati Sanitarium xvii
Commercial Announcements xxiv
Commercial Casualty Ins. Co., Fort Wayne xxiv
Cook County Graduate School, Chicago xviii
Heid's Health Shoes, Indianapolis xii
Holland-Rantos Company v
Hord's Sanitarium, Anchorage, Ky xix
Indiana University Medical School ..... 4th cover
Indiana University Post-graduate Course xxxix
Eli Lilly & Company, Indianapolis xx
Louisville Neuropathic Sanitarium, Louisville xvii
Luzier's Cosmetics and Perfumes xxxviii
Maples Sanitarium, Lima, Ohio xvii
McMillen Sanitarium, Columbus, Ohio xvii
Mead Johnson & Company, Evansville iv
Medical Protective Co., Wheaton, Ill xxi
Milwaukee Sanitarium, Wauwatosa, Wisc ..... 4th cover
National Chewing Gum Ass'n xxxviii
Neuronhurst—Fletcher's Sanitarium, Indianapolis xviii
Nestle's Milk Products, New York xiv
Parke, Davis & Company, Detroit xiv
Petrolagar Company, Chicago ..... 2nd cover
Philip Morris & Co., New York xvi
Physicians' Casualty Association, Omaha, Neb xxi
Physicians' Directory xxvii
Pitman-Moore Company, Indianapolis xv
Plymouth Sanitarium, Plymouth, Ind xix
Pogue School, Wheaton, Ill xxvi
Radium & Radon Corporation, Chicago xii
Rupp & Bowman, Toledo, Ohio xii
S. M. A. Corporation, Chicago ix
South Bend Medical Laboratory xviii
Sterne Memorial Hospital, Indianapolis xviii
Stokes Hospital, Louisville, Ky xv
Upjohn Company, Kalamazoo, Mich iii
Waukesha Springs Sanitarium, Waukesha, Wisc xvii
White-Haines Optical Co., Indianapolis xii
Winthrop Chemical Co., New York xiii
Wyeth, John & Bro., Philadelphia xxiii
Zemmer Co., Pittsburgh xxv

(Continued from page xxv)

from the Canadian forces abroad are reported to be mentally unfit."

In his paper Dr. Kardiner declares that "there is no such thing as a war neurosis, that is, a specific neurosis created exclusively by the particular conditions of warfare. No psychiatric symptom complex is observed in war which does not occur in peace. The only influence that war has is that it offers opportunities for the development of neuroses in much greater concentration and frequency than do the conditions of peace."

He says that by far the most frequent and important symptom complex which occurs during war is the traumatic neurosis. Notwithstanding the great variety of symptoms in traumatic neurosis, he says, the condition "depends on a principle which is so common that anyone can recognize its operation in his own life. The basic principle is this: An activity which fails or causes pain tends to become inhibited."

Regarding the possibility of being able to rule out those candidates for service in the army in whom traumatic neuroses are likely to develop under the conditions of war, Dr. Kardiner says that although there are no certain criteria there are a few which can be used with some confidence. "Stammerers, tiqueurs and persons who give a history of convulsive phenomena at some time in their lives are likely candidates for traumatic neurosis. In addition to these, there are the persons who are 'fainty'; those who cannot stand the sight of blood; those who have no tolerance for physical pain; those who have a low cardiac reserve, and, finally, those with certain chronic forms of disturbance of the autonomic nervous system, such as gastric ulcer and mucous colitis. However, with the last-mentioned group I should give the candidate the benefit of the doubt and decide on his fitness after he is inducted into service and has been observed in training."

He says, however, that he sets only a slight value on these criteria, "for anyone may have a traumatic neuroses. In fact, I should go even further and say that everyone exposed to war has a mild form of traumatic neurosis, which, however, may not become stabilized, so that the patient may not organize a new adaptation on the basis of a transitory neurosis."

The doctor says that so far as treatment of traumatic neurosis is concerned it is a prophylactic in the acute stages and re-educative in the chronic stages. "The real therapy should be done in the acute stages, and no chronic form of traumatic neurosis should be allowed to develop," he declares.

The Mary E. Pogue School

DOCTORS: You may continue to supervise the treatment and care of children you place in our school. Catalogue on request.

40 Geneva Road *Telephone*
WHEATON, ILLINOIS *WHEATON 66*

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 JULY, 1941 NUMBER 7

THE TREATMENT OF PARKINSON'S DISEASE WITH PYRIDOXINE HYDROCHLORIDE (VITAMIN B_6 HYDROCHLORIDE)

PRELIMINARY REPORT*

CECIL L. RUDESILL, M.D.

CLAYTON G. WEIGAND, M.D.

INDIANAPOLIS

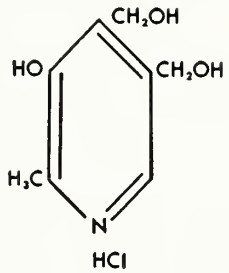
Extensive experimental and clinical investigation has made possible the recognition of several members of the vitamin B complex. The work of Paul György (1934-1936) first established vitamin B_6, the "rat pellagra-preventive factor" or "rat acrodynia factor," as a component of the B group. Concentrates of vitamin B_6 have been prepared from extracts of rice bran, fish and fish products, yeast, tikitiki, and wheat germ. From such material vitamin B_6 has been isolated in crystalline form, identified, and synthesized.[1]

The Council on Pharmacy and Chemistry of the American Medical Association has adopted the name "pyridoxine" to designate vitamin B_6, and "pyridoxine hydrochloride" for vitamin B_6 hydrochloride.[2] The latter is largely the form in which this fraction is available commercially.

Recent reports by Spies and his co-workers,[3, 4, 5] who first applied vitamin B_6 clinically, indicate that this factor is essential in human nutrition and that deficiency diseases are often multiple in nature. Publications by Jolliffe,[6] Smith and Martin,[7] and others also suggest that pyridoxine is a necessary element in human nutrition.

CHEMISTRY

Vitamin B_6 hydrochloride is 2-methyl-3-hydroxy-4, 5-di-(hydroxy-methyl)-pyridine hydrochloride ($C_8H_{12}O_3NCl$), structurally represented as follows:



It is chemically identical to natural vitamin B_6 hydrochloride.[8] In comparable doses vitamin B_6 hydrochloride exhibits a curative effect parallel to that of the free base.

Vitamin B_6 hydrochloride is a white, crystalline, odorless powder, salty in taste. It is readily soluble in water but sparingly soluble in alcohol and acetone. The salt is nonhygroscopic under ordinary atmospheric conditions. It has a molecular weight of 205.5. Aqueous solutions are acid in reaction, a 1 percent solution having a pH of approximately 2.44.

PHARMACOLOGY

Acute toxicity studies demonstrate the median lethal dose (LD_{50}) of vitamin B_6 hydrochloride to

* Read before the Indianapolis Medical Society, Indianapolis, April 8, 1941.

[1] Harris, S. A., and Folkers, K.: Synthetic Vitamin B_6, *Science*, **89**:347, 1939.

[2] Reports of the Council. Designations "Pyridoxine" and "Pyridoxine Hydrochloride" for Vitamin B_6 and Vitamin B_6 Hydrochloride, *J.A.M.A.*, **114**:2387, 1940.

[3] Spies, Tom D., Bean, W. B., and Ashe, W. F.: A Note on the Use of Vitamin B_6 in Human Nutrition, *J.A.M.A.*, **112**:2414, 1939.

[4] Spies, Tom D., Ladisch, R. K., and Bean, W. B.: Vitamin B_6 (Pyridoxin) Deficiency in Human Beings: Further Studies with Special Emphasis on the Urinary Excretion of Pyridoxin, *J.A.M.A.*, **115**:839, 1940.

[5] Spies, T. D., Hightower, D. P., and Hubbard, L. H.: Some Recent Advances in Vitamin Therapy, *J.A.M.A.*, **115**:292, 1940.

[6] Jolliffe, N.: Clinical Aspects of Vitamin B Deficiencies, *Minnesota Med.*, **23**:542, 1940.

[7] Smith, Susan G., and Martin, D. W.: Cheilosis Successfully Treated with Synthetic Vitamin B_6, *Proc. Soc. Exper. Biol. & Med.*, **43**:661, 1940.

[8] Harris, S. A., and Folkers, K.: Synthesis of Vitamin B_6, *J. Am. Chem. Soc.*, **61**:1245, 1939.

be 545.3±42.9 mg. per kilogram in mice and 657.5±18.3 mg. per kilogram in rats. Repeated administration of the vitamin to mice in doses of 100 mg. per kilogram did not produce untoward symptoms, and when the animals were sacrificed no pathological changes were detected.[9]

No ill effects were observed in a group of twelve young male adults to whom vitamin B_6 hydrochloride was administered orally or intravenously in doses of 100 to 200 mg. Mild pain, persisting for a short time, was noted by six subjects who were given intramuscular injections of the vitamin.[9]

The studies conducted by Unna and Antopol[10] on rats, dogs, and monkeys indicate that synthetic vitamin B_6 is a substance of low toxicity. The difference in toxicity of the vitamin when given by injection or by the oral route was small, and indicates that complete absorption occurs from the intestinal tract in these animals. Massive doses of vitamin B_6 or vitamin B_6 hydrochloride administered to rats will produce convulsions and death.

PHYSIOLOGICAL EFFECTS

The work of Birch,[11] Schneider *et al.*,[12] Gross,[13] and others suggests that vitamin B_6 is associated with the utilization of unsaturated fatty acids. This relationship appears to be complex and is not fully understood at the present time. Vitamin B_6 also may aid in the production of the respiratory enzyme (containing the pyridine structure) which is involved in muscle metabolism.

Fouts and his co-workers[14, 15] have found that a severe microcytic hypochromic anemia will develop in puppies when vitamin B_6 is apparently the only missing component of the diet. The anemia may be cured by the addition of this factor to the diet. Borson and Mettier[16] concur with this observation.

In vitamin B_6 deficient rats, foci of degeneration in striated and cardiac muscle develop, and changes take place in the nervous system, especially the columns of the spinal cord. Other histological findings have been described by Antopol and Unna.[17] Emerson[18] states that rats cease to grow on a vitamin B_6 deficient diet and that reduction in size of the accessory organs of reproduction occurs, a finding in harmony with the uniformly defective sexual behavior also observed. In chicks, symptoms of vitamin B_6 deficiency consist of slow growth, depressed appetite, and inefficient utilization of food, followed in some instances by spasmodic convulsions and death, according to Jukes.[19]

Reedman *et al.*[20] report that synthetic vitamin B_6 and that obtained from natural sources are identical in their physiological action.

REPORTED CLINICAL USES

Spies and his associates[3, 4, 5] administered vitamin B_6 to *pellagrins* and patients with *beriberi* who had been successfully treated for these disorders but exhibited residual symptoms, including extreme nervousness, insomnia, irritability, abdominal pain, weakness, and difficulty in walking. Within four hours after the parenteral administration of 50 mg. of synthetic vitamin B_6, all of the patients exhibited material relief of symptoms and increased strength. Within twenty-four hours after therapy with the vitamin had been instituted, all previously noted symptoms disappeared.

Kark *et al.*[21] did not observe response to B_6 administration in four *anemic pellagrins* who also had been given ferrous sulfate, nicotinic acid, thiamin chloride, riboflavin, and ascorbic acid prior to and during B_6 therapy. However, this clinical study demonstrates that vitamin B_6 hydrochloride is nontoxic in human beings within the dosage range employed. Amounts of 130 mg. to 1,160 mg. of the vitamin were given orally and intravenously to patients over periods of six to twenty-one days, without encountering by-effects referable to the use of this fraction.

Antopol and Schotland[22] report the administration of vitamin B_6 to six individuals with *pseudohypertrophic muscular dystrophy.* Considerable improvement in the condition of the patients was observed following therapy, although they were

[9] Weigand, C. G., Eckler, C. R., and Chen, K. K.: The Action and Toxicity of Vitamin B_6 Hydrochloride, *Proc. Soc. Exper. Biol. & Med.*, **44**:147, 1940.

[10] Unna, K., and Antopol, W.: Toxicity of Vitamin B_6, *Proc. Soc. Exper. Biol. & Med.*, **43**:116, 1940.

[11] Birch, T. W.: The Relation Between Vitamin B_6 and the Unsaturated Fatty Acid Factor, *J. Biol. Chem.*, **124**:775, 1938.

[12] Schneider, H., Steenbock, H., and Platz, B. R.: Essential Fatty Acids, Vitamin B_6 and Other Factors in the Cure of Rat Acrodynia, *J. Biol. Chem.*, **132**:539, 1940.

[13] Gross, P.: The Role of the Unsaturated Fatty Acids in the Acrodynia (Vitamin B_6 Deficiency) of the Albino Rat, *J. Invest. Dermat.*, **3**:505, 1940.

[14] Fouts, P. J., Helmer, O. M., Lepkovsky, S., and Jukes, T. H.: Production of Microcytic Hypochromic Anemia in Puppies on Synthetic Diet Deficient in Rat Antidermatitis Factor (Vitamin B_6), *J. Nutrition*, **16**:197, 1938.

[15] Fouts, P. J., Helmer, O. M., and Lepkovsky, S.: Cure of Microcytic Hypochromic Anemia in Dogs with Crystalline "Factor I." *Proc. Soc. Exper. Biol. & Med.*, **40**:4, 1939.

[16] Borson, H. J., and Mettier, S. R.: Relief of Hypochromic Anemia in Dogs with Synthetic Vitamin B_6: Influence of "Filtrate Factors." *Proc. Soc. Exper. Biol. & Med.*, **43**:429, 1940.

[17] Antopol, W., and Unna, K.: Pathology of B_6 Deficiency in the Rat and Response to Treatment with 2-Methyl-3-Hydroxy-4,5-Dihydroxymethyl-Pyridine (Vitamin B_6). *Proc. Soc. Exper. Biol. & Med.*, **42**:126, 1939.

[18] Emerson, G. A., and Evans, H. M.: Growth and Reproductive Physiology in Vitamin B_6 Deficiency. *Am. J. Physiol.*, **129**:352, 1940.

[19] Jukes, T. H.: Vitamin B_6 Deficiency in Chicks, *Proc. Soc. Exper. Biol. & Med.*, **42**:180, 1939.

[20] Reedman, E. J., Sampson, W. L., and Unna, K.: Identity of Natural and Synthetic Crystalline Vitamin B_6. *Proc. Soc. Exper. Biol. & Med.*, **43**:112, 1940.

[21] Kark, R., Lozner, E. L., and Meiklejohn, A. P.: Negative Effect of Synthetic Vitamin B_6 Hydrochloride in Nutritional Deficiency in Man. *Proc. Soc. Exper. Biol. & Med.*, **43**:97, 1940.

[22] Antopol, W., and Schotland, C. E.: The Use of Vitamin B_6 in Pseudohypertrophic Muscular Dystrophy. *J.A.M.A.*, **114**:1058, 1940.

not cured. No untoward effects were encountered which were referable to the medication. These authors proceeded on the theory that vitamin B_6 might have some effect on muscle action since foci of muscle atrophy develop in B_6 deficient rats, and because tremors and convulsions occur in the animals after they have received massive doses of the vitamin.

Vilter, Schiro, and Spies[23] administered 50 to 100-mg. doses of the vitamin intravenously each day for ten days to three *pellagrins* exhibiting a macrocytic anemia and to two patients with *pernicious anemia*. In view of certain blood changes that occurred following therapy, the authors suggest that vitamin B_6 has a definite effect upon the hematopoietic system of human beings with macrocytic anemia of pellagra or of pernicious anemia in relapse. They do not imply that B_6 is the antipernicious anemia factor.

In that pyridoxine is involved in muscle metabolism and that patients with *paralysis agitans* exhibit characteristic muscular rigidity and weakness, it was believed that B_6 therapy was worthy of trial in this disorder. On this premise, Jolliffe[6] has administered vitamin B_6 to fifteen patients with parkinsonism. All of the individuals chosen for study were bedfast or chairfast, ten of them for more than three years. Six gave a history of encephalitis. All of the patients received 50 or 100 mg. of vitamin B_6 hydrochloride by intravenous injection, either daily or every other day. Four persons showed subjective and definite objective improvement and two others were subjectively benefited. Objective beneficial results in helpless patients reported in this study were limited to those whose complete disability was of less than three years' duration and who did not give a history of encephalitis.

Jolliffe's study was later extended to thirty patients.[5] He observed "no apparent improvement in the postencephalitic group, little or no improvement in any group of patients hospitalized for over three years and dramatic improvement in approximately 20 percent of the patients with nonencephalitic parkinsonism who had been helpless for less than one year." Additional reports[24, 25] state that forty ambulant patients having the paralysis agitans syndrome have been treated with pyridoxine. It is said that approximately 20 percent of the cases exhibited marked objective improvement. Benefit in some degree was observed, however, in about two-thirds of the individuals so treated. Jolliffe concludes that the syndrome of paralysis agitans appears to include a group of patients whose manifestations, particularly the rigidities and weakness, respond to treatment with vitamin B_6.

Spies *et al.*[5] have treated eleven selected cases of *parkinsonism* of at least four years' duration, eight of which were arteriosclerotic and three postencephalitic in origin. Rigidity was significantly reduced in the latter group and the patients were able to walk without the usual stiffness. This improvement took place within a few minutes after the intravenous injection of 50 mg. of vitamin B_6. Two of the arteriosclerotic cases showed definite improvement, five were unchanged, and one was considerably worse. Spies concluded that some persons with Parkinson's disease may have an associated vitamin B_6 deficiency, and that administration of the vitamin is warranted under controlled conditions.

Spies *et al.* also have tried B_6 therapy in cases of *idiopathic epilepsy, amyotrophic lateral sclerosis,* and *myasthenia gravis,* reporting some measure of improvement in these conditions.

Smith and Martin[7] have observed the cure of *cheilitis,* similar to that occurring in the presence of riboflavin deficiency, in six patients who received B_6 in doses of 20 to 350 mg. One individual also required concentrated liver extract to produce complete healing of the lesions. It is said that (1) riboflavin deficiency may be the primary factor responsible for the development of cheilitis and that B_6 operates only indirectly; (2) the reverse may be true; and (3) both riboflavin and vitamin B_6 possibly are necessary to maintain the integrity of the lips at the mucocutaneous junction, and that a deficiency of either will precipitate the lesions.

Donovan[26] suggests that some cases of *postural lordosis* in school children are minor or arrested forms of muscular dystrophy. The author used wheat germ in treating a case of postural lordosis (a child of eleven years) on the theory that vitamins B_6, E, and other factors were present in this substance and that beneficial effects might be expected. The child's lordosis completely disappeared, suggesting to the author, since no other treatment had been used, that the deformity originally developed because of a vitamin deficiency.

Vilter, Aring, and Spies[27] report partial remission in a severe case of *arsenic polyneuritis* after treatment with synthetic vitamin B_6 (40 mg.). Improvement was more spectacular when alpha-tocopherol (50 mg.) was used concurrently. To maintain the effects these substances had to be administered daily. The previous use of thiamin chloride had not influenced the condition.

A specific syndrome in man attributable to a deficiency of vitamin B_6 has not been described[24, 25] and the true physiological role played

[23] Vilter, R. W., Schiro, H. S., and Spies, T. D.: Effect of Synthetic Vitamin B_6 on the Hematopoietic System of Human Beings. *Nature,* **145**:388, 1940.

[24] Jolliffe, N.: Recent Advances in Clinical Applications of the B- Vitamins. *J. Am. Dietet. A.,* **17**:5, 1941.

[25] Jolliffe, N.: Newer Knowledge of the Vitamin B Complex. *Bull. New York Acad. Med.,* **17**:195, 1941.

[26] Donovan, G. E.: Lordosis and Muscular Dystrophy. *Lancet,* **2**:162, 1940.

[27] Vilter, R. W., Aring, C. D., and Spies, T. D.: A Case of Arsenic Peripheral Neuritis Treated with Synthetic Vitamin B_6 and Alpha-Tocopherol. *J.A.M.A.,* **115**:209, 1940.

by this factor of the B complex in human nutrition is unknown at present. However, evidence is rapidly accumulating which demonstrates that B_6 may be as important as nicotinic acid, thiamin chloride, and riboflavin.

CASE REPORTS*

The individual reports by Jolliffe and Spies, who applied vitamin B_6 clinically in cases of paralysis agitans, as previously stated, led to our study of three additional patients who formerly had been treated with other drugs. The authors were especially interested in determining the effects of extended treatment, since there were no published reports in this regard. Therapy has been continuous for seven months in Case I, for six months in Case II, and for five months in Case III. The results observed are recorded in Table I.

Case I—R. C., a white male, age 62 years, a merchant, has had idiopathic Parkinson's disease for eleven years, exhibiting marked rigidity and weakness which had become progressively more pronounced during this period. Tremor had never been an outstanding symptom although it involved his whole body to a mild degree. Physical findings other than the parkinsonian syndrome were irrelevant. The laboratory studies conducted (blood counts, blood Wassermann, basal metabolism, renal function tests, roentgen examination of the gall bladder and gastro-intestinal tract, and blood chemistry) were normal. The blood pressure was 130/70. The patient has been under treatment with vitamin B_6 hydrochloride since August 22, 1940.

Following the first intravenous injection of 100 mg. of the vitamin, the patient slept well all night and felt much stronger the next day, which was contrary to the usual course of events. Treatment was continued with injections of 100 mg. every other day, resulting in increased strength and lessening of the "muscle-bound" type of rigidity. After the second injection the patient was able to walk a block without fatigue. He previously had been confined to his home. Within a week after initiation of therapy he was able to walk about the neighborhood and lift his feet in doing so. Within a month he could walk to his store two blocks away, remain there for one or two hours, and then return home unaided. The patient was able to turn his head to look at a passing car while continuing to walk, something that he had not been able to do for some time. He could turn in bed unassisted and move his toes, which he had not been able to do for several years past. Aching disappeared, and his feet, previously cold and cyanotic, became warm and normal in color and sensation. He developed a feeling of warmth over his entire body, sweating practically disappeared, and disturbed, restless sleep changed to quiet slumber. The patient also felt improved in general well being.

After six to eight weeks of treatment his condition reached a status quo beyond which he did not

* The vitamin B_6 hydrochloride used in this study was furnished in part by Eli Lilly and Company.

Table I — SUMMARY OF THE RESULT OF TREATMENT

		CASE I	CASE II	CASE III
Age - sex		62 - male	61 - male	64 - male
Duration		11 yrs.	10 yrs.	2 yrs.
Tremor	Before treatment	Slight	Marked	Slight of hands
	After treatment	Improved	Moderately improved	Improved
Weakness	Before treatment	Unable to turn in bed Hardly able to walk Knees weak and had to stop after few blocks	Walked little Climbed stairs slowly Complained of weakness	Active but tired easily
	After treatment	Walked four city blocks Able to turn in bed Able to be up most of time	Walked more Climbed stairs faster and more often Not so weak	Much less fatigue
Rigidity	Before treatment	Slow deliberate movements Could not move toes Could not turn head if walking	Slow movements Sense of being muscle bound	Slight
	After treatment	Movements much faster Could move toes Could turn head while walking	Faster movements Less muscle bound	None
Facial Expression	Before treatment	Masked faciee	Masked facies	Slightly masked facies
	After treatment	More expression	More expression	Normal expression
Aching Arms	Before treatment	Mild to moderate	Considerable	None noted
	After treatment	Improved to none	Very little	No change
Speech	Before treatment	Soft - slow	Moderately soft	Slightly soft
	After treatment	Louder, better quality, slow	Better quality	Better quality
Sleep & Nocturia	Before treatment	Disturbed - wakeful Nocturia none	Disturbed - wakeful Nocturia 3-4 times	Moderately restless Nocturia 3-4 times
	After treatment	Slept much better	Restful sleep Nocturia once	Restful sleep Nocturia 0-1 time
Sensation of Warmth	Before treatment	Feet and hands cold and cyanotic	Feet cool	Not disturbed
	After treatment	Feet and hands warm and pink	Feet warm	No change
Sweating	Before treatment	Profuse	Profuse	Slight
	After treatment	Little to none	Slight	Improved

improve, although he continued to feel well until placed on oral medication. Relapse then occurred, but prompt improvement again took place when intravenous treatment was resumed. Further details of therapy are outlined in Table II.

Case II—G. H. A., a white male, age 61 years, an engineer, has had idiopathic Parkinson's disease for ten years, the symptoms first appearing and being confined to the left arm and hand, but subsequently advancing during the next two years until his entire body was involved. Tremor was marked from the first. Weakness and muscle rigidity and aching gradually developed, accompanied by an increase in blood pressure from normal to 170/100. Other physical findings were not significant and the laboratory studies conducted were normal. Treatment with vitamin B_6 hydrochloride has been continuous since October 3, 1940.

Following the first injection of 100 mg. of the vitamin, the patient slept better than he had at any time in the past four years. His strength improved immediately and the tremor was noticeably reduced. Intravenous injections of 100 mg. of the drug were continued every other day. Within two weeks after initiating therapy remarkable improvement in strength and muscle rigidity was noticeable. There was moderate improvement in the tremor and sweating. The patient became more active and was able to move about faster, the myalgia practically disappeared, and sleep was less restless. A nocturia of three to four times was reduced to once. Although changes were made in the treatment regimen three months later, he continued to remain at the status quo which he had reached two weeks after starting therapy. Further details of treatment are outlined in Table II.

Case III—M. B. B., a white male, age 64 years, complained of tremor, weakness, and frequency of urination of almost two years' duration. Examination justified the diagnosis of mild idiopathic parkinsonism and cystitis. The physical examinaton was essentally negative, except as noted and for mild facial involvement. The laboratory findings were normal. These studies were conducted one year before treatment with vitamin B_6 hydrochloride was begun. In the interim the cystitis apparently had been cured, although the patient still had some frequency and nocturia. He also complained of restless sleep. Treatment with the vitamin has been continuous since November 2, 1940.

As in the cases previously described, increase in strength, decrease in tremor, and improvement of sleep occurred almost immediately. The urinary frequency subsided and the patient rarely rises at night. His facial expression soon became normal and except for a slight tremor he appears perfectly well. Refer to Table II for additional details in treatment.

DOSAGE

The optimal dosage of vitamin B_6 or its hydrochloride for the treatment of B_6 deficiency and such conditions as paralysis agitans has not been definitely established. Present evidence indicates that repeated doses of 50 mg. or more are efficacious in paralysis agitans. In order to obviate daily administration to our patients, the authors adopted the use of larger doses of the drug at less frequent intervals than recommended by others (see below). The results with this procedure seem to be equally gratifying.

According to Jolliffe[28, 29] the following tentative scheme of therapy can be suggested for extended treatment of parkinsonism:

1. Correction of dietary errors.
2. Vitamin B complex orally, using 20 gm. brewer's yeast daily or substituting capsules of B complex for those individuals who cannot take yeast.
3. Fifty milligrams of vitamin B_6 are given five times weekly (intravenously or intramuscularly) for four weeks.
4. Therapy is discontinued if improvement has not occurred.
5. If benefit has been obtained, the injections are continued. Fifty milligrams are used

[28] Jolliffe, N.: Substance of interview.

[29] Jolliffe, N.: Further Results of Vitamin B_6 Therapy in Paralysis Agitans. Read before the Section of Neurology and Psychiatry, New York Academy of Medicine, December, 1940.

Table II DOSAGE OF VITAMIN B_6

DOSAGE		CASE I	CASE II	CASE III
Intravenous	Oral			
100 mg. once in 2 days		Aug. 22 to Sept. 7	Oct. 3 to Dec. 31	Nov. 2 to Nov. 8 (4 doses)
100 mg. three times weekly				Nov. 8 to Dec. 20
100 mg. once in 3 days		Sept. 7 to Dec. 13	Dec. 31 to Jan. 21	
	50 mg. daily	Dec. 14 to Dec. 28 Patient relapsed		
100 mg. once in 3 days		Dec. 28 to Jan. 4 Patient improved		
100 mg. weekly	50 mg. daily	Jan. 4 to Feb. 21 Patient relapsed	Jan. 21 to Mar. 18 Partial relapse	
100 mg. once in 3 days		Feb. 21 to Mar. 8 Patient improved		
	100 gm. daily	Mar. 8 to Mar. 22 Patient relapsed		
100 mg. twice weekly		Mar. 22 to Apr. 7 Patient improved	Mar. 18 to Apr. 7 Patient improved	Dec. 20 to Apr. 7

four times weekly, then three times weekly, twice weekly, and once weekly.

6. Administration is continued once a week.

Jolliffe has said that oral therapy does not seem to be as efficacious as treatment by injection, although one of his patients has appeared to progress satisfactorily on an oral dose of 50 mg. B_6 daily.

Our experience with oral medication has been disappointing. In Case I, 50 mg. each day and at a later date 100 mg. daily did not prevent complete relapse. When we tried the combined use of 50 mg. of the vitamin daily by mouth and 100 mg. once a week intravenously, the patient gradually relapsed after a period of four weeks and became so helpless that combined administration was discontinued. After Case II had been treated for more than three months, he was placed upon 50 mg. of vitamin B_6 hydrochloride each day by mouth and once a week was given an intravenous injection of 100 mg. The improvement he had experienced previous to this regimen continued for seven weeks, after which rigidity and weakness increased. More active parenteral medication was then resumed. Oral treatment with moderately large doses of the vitamin probably failed because of partial or total lack of absorption of the drug from the gastro-intestinal tract. Future studies may suggest the reason.

Vitamin B_6 may be given intramuscularly or intravenously, but intramuscular use may be followed by tenderness and discomfort at the site of injection, and for this reason the intravenous route is preferable whenever possible.

SUMMARY

1. Three ambulatory patients with idiopathic Parkinson's disease have been treated with pyridoxine hydrochloride (vitamin B_6 hydrochloride) over a period of five to seven months. Two cases were severe and of long standing; one was mild and of recent origin.

2. Beneficial effects were observed within an hour after initiating treatment with 100 mg. intravenous doses of the drug. The improvement was manifested for the most part by an increase in strength and more restful sleep than the patients ordinarily experienced.

3. Both subjective and objective improvement in rigidity and tremor followed, and other symptoms influenced by rigidity and tremor were correspondingly relieved.

4. In our cases improvement steadily progressed for a period of two to six weeks, at which time the patients reached a status quo that could be maintained only as long as the medication was continued in adequate dosage.

5. The degree of benefit in all cases has been such that none wish to discontinue the medication.

CONCLUSIONS

1. The authors do not wish to leave the impression that vitamin B_6 hydrochloride will cure paralysis agitans. However, it is definitely beneficial in some cases.*

2. Oral therapy does not appear to be as efficacious as treatment by injection.

3. Improvement in strength and rigidity accompanied by a subjective sense of well being constitutes the chief response to therapy in these cases.

* Since this paper was written two additional articles have appeared which relate to the treatment of parkinsonism with vitamin B_6 (Zeligs, M. A.: *J.A.M.A.*, **116**:2148, 1941; and Baker, A. B.: *J.A.M.A.*, **116**:2484, 1941). Zeligs did not observe any beneficial effects in fifteen patients (ten postencephalitic and five arteriosclerotic) with repeated intravenous doses of 50 to 100 mg. of the vitamin. However, Baker noted improvement in six of fifteen patients treated with 50 to 100 mg. of B_6 administered intravenously each day for from two to four weeks. This treatment was supplemented with brewer's yeast (54 grains daily) in the majority of instances. In Baker's series there were eight patients with idiopathic or arteriosclerotic parkinsonism, one with senile chorea rather than true parkinsonism (materially benefited), three of the postencephalitic type, and one of the syphilitic form. In two the etiologic factors involved were unknown.

405 HUME-MANSUR BUILDING
731 SOUTH ALABAMA STREET

ABSTRACT

MEANS OF OVERCOMING OBJECTION TO UNIVERSAL BLOOD IS REPORTED

A method by which the main objection to the use of universal blood is overcome is reported in *The Journal of the American Medical Association* for June 14 by Ernest Witebsky, M.D.; Niels C. Klendshoj, M.D., and Paul Swanson, M.D., Buffalo. The objection concerns the presence of two factors in universal blood, termed anti-A and anti-B, which frequently cause a reaction in a recipient due to their incompatibility with the blood cells of the recipient.

The three Buffalo physicians condition the blood from a so-called universal donor by adding two substances which are carbohydrate-like in nature and which neutralize the anti-A and anti-B factors.

"Universal blood," the three physicians say, "conditioned in the manner described can be given to any patient independently of the blood group to which he belongs without the necessity of previous determination of the patient's blood group and in emergencies even without cross matching. This blood, when kept in blood banks, is available for immediate use. When it is employed exclusively for all transfusions, no possible mix-ups with blood of different blood groups can occur. . . .

"Serious objections against the indiscriminate use of universal blood have been raised by a number of investigators, some of them even warning against its use on a large scale in time of war. By eliminating the main objection . . . such 'safe' blood of group 0 can really be considered as a 'universal' blood. It is obvious that the group-specific substances can also be used advantageously in the reduction of the anti-A and anti-B factors in plasma and serum when indicated."

HYPEROSTOSIS OF THE CALVARIUM*

PRELIMINARY REPORT

C. L. WILLIAMS, M.D.†

LOGANSPORT

The articles on hyperostosis frontalis interna by Moore[1] and Carr[2] stimulated the interest of the author on this subject, particularly when these authors described the syndrome of thickening of the inner table of the frontal bone associated with obesity and mental disturbance. As these articles were being studied, there came into the author's mind the large number of obese females with all types of mental disturbance, the majority of whom show considerable deterioration, which one finds on the women's wards of any fairly large state hospital.

Since the clinical picture is rather occasionally met among the female population of state hospitals, it was felt that the literature would contain several groups of cases from large mental institutions, but such was not the case. Perkins and Biglow[3] reported a case from the Central Islip State Hospital in New York, while those reporting cases apparently not from a large mental hospital included Salzer[4] 4 cases, de Lehoczky and Orbán[5] 1 case, Roger[6] 2 cases, Reider[7] 2 cases from a private clinic, Levison[8] 2 cases, Abély and Delmond[9] 1 case, Donini[10] 3 cases, Eisen[11] 1 case, and Stertz[12] 1 case.

A brief review of the literature shows that Morel[13] in 1930 wrote a thesis on hyperostosis frontalis interna, covering the literature up to that time and reporting a living case. Morel reports that Morgagni with the collaboration of Santorini, in 1765, reported a case of the autopsy of a woman 75 years of age who undoubtedly had hyperostosis frontalis interna. This was the first case reported. Moore[14] mentions the works of Naito, Casati, R. M. Stewart and D. M. Greig, which deal with studies of museum specimens and autopsy reports. The foregoing articles appeared to be the stimulus for considerable research on the subject, for the literature has become fairly extensive since that time. The author collected a bibliography of 32 titles from which he was able to find an additional 34 cases. The articles of Moore[14], Carr[2] and Henschen[15] which cover studies on a total of 147 positive cases, would make a total of at least 181 cases to date in the literature.

From the articles studied there appears to be a rather marked unanimity of the description of the syndrome. Most of the investigators have written on hyperostosis frontalis interna, which term was apparently introduced by Morel[13], while in reality, this is only one type of the calvarial hyperostoses. Schiff and Trelles[16] reported a case as the syndrome of Stewart-Morel, while Schachter[17] and Henschen[15] referred to the condition as Morgagni syndrome. Moore[1] discussed the syndrome as cal-

† The author wishes to acknowledge assistance received from Dr. Ernst Oppenheimer who translated the foreign literature in the bibliography, and took most of the roentgenograms, and Dr. E. B. Jewell of Logansport, Indiana, for aid in interpretations of the roentgenograms.

* From the Logansport State Hospital. Read before the meeting of the Central Neuropsychiatric Association at Indianapolis, Indiana, October, 1939.

[1] Moore, Sherwood: Calvarial hyperostosis and the accompanying symptom complex. *Arch. Neur. & Psych.*: **35**: 1936: p. 975.

[2] Carr, Archie D.: Neuropsychiatric syndromes associated with hyperostosis frontalis interna. *Arch. Neur. & Psych.*: **35**: 1936: p. 982

[3] Perkins, O. C. and Biglow, A. M.: Hyperostosis Frontalis Interna. *Psychiat. Quart.* **12**: p. 341-350, April, '38.

[4] Salzer, H. M.: Hyperostosis Syndrome. *Jr. Med.* **19**: p. 507-510, Dec. '38.

[5] de Lehoczky, T., and Orbán, A.: Hyperostosis Frontalis Interna (Stewart-Morel Syndrome). *Brit. M. J.*, 1: p. 1049-1050, May 14, 1938.

[6] Roger, A. A.: Internal Frontal Hyperostosis Syndrome (with report of 2 cases). *Canad. M. A. Jr.* 38: 129-132, Feb., 1938.

[7] Reider, N.: Alzheimer's Disease Associated with Hyperostosis Frontalis Interna; *Bull. Menninger Clin.* 1: 123-128, Mar., 1937.

[8] Levison, P., Morgagni Syndrome (internal hyperostosis of frontal bone, virilism and obesity); *Hospitalstid.* 80: 352-354, Mar., 23, 1937.

[9] Abély, X., and Delmond, J., Internal Frontalis Hyperostosis; dementia, symmetrical lipomatosis and infundibular disturbances; *Ann. Med. Psychol.* (pt. 2) 95: 225-231, July, 1937.

[10] Donini, F., Internal Frontalis Hyperostosis, with clinical and anatomicopathologic report of 3 cases in women with mental diseases. *Note e riv. di psichiat.* 66: 279-349, July-Sept., '37.

[11] Eisen, D., Internal hyperostosis syndrome. *Canad. M. A. J.* 35: 24-27, July, 1936.

[12] Stertz, G., Internal Frontalis Hyperostosis in Presenile Dementia, Case. *Arch. f. Psychiat.* 101: 798-799, 1934.

[13] Morel, Ferdinand: L'hyperostose frontale interne, Syndrome de l'hyperostose frontale interne avec adipose et troubles. Paris: G. Doin et Cie, 1930.

[14] Moore, Sherwood: Hyperostosis frontalis interna. *Surg. Gyn. & Obs.*: 61: 1935, p. 345.

[15] Henschen, F.: Morgagni syndrome (internal frontal hyperostosis, virilism and adiposis). *Ann. d'anat. path.* 13: 943-960, Nov., 1936.

[16] Schiff, P. and Trelles, J. O.: Syndrome de Stewart-Morel (Hyperostose frontale interne avec adipose et troubles mentaux) d'origine Traumatique. *Encéphale*, 26:768, 1931.

[17] Schachter, M.: Morgagni syndrome: Internal hyperostosis of frontal bone, virilism and obesity (Henschen) or hyperostotic endocraniosis (Pende). *Gaz. d. hop.* 110: 1453-1456, Nov. 17, 1937.

varial hyperostosis, and Canavan[18] in reporting 230 cases from protocols in the pathologic laboratory of the Massachusetts Department of Mental Diseases referred to the condition as enostoses of the calvarium. The writer prefers the term "calvarial hyperostosis," because of the fact that the inner table is thickened or hypertrophied. The terms, enostoses and exostoses, from a dictionary definition, imply tumor growths, and so far as the present literature shows, it is felt that no one has as yet shown the condition to be a tumor growth.

When the attempt was made to study the cases to be presented in the light of the foregoing terms, there was considerable confusion as to where some of the cases showing abnormalities roentgenographically should properly be classified. Moore's[1] classification was of considerable value to classify the cases roentgenographically, and it is felt that it would be well to give that classification here.

Type I, or Hyperostosis Frontalis Interna, consists of deposits of new bone on the inner table of the frontal bone, and may extend to other bones of the skull. The new bone deposits may be sessile or nodular.

Type II, or Nebula Frontalis consists of a triangular, or ellipsoid area of increased density, located in the squama frontalis, extending downward from a base on the saggital plane.

Type III, or Hyperostosis Calvariae Diffusa, is one in which there is a generalized increase in thickness of the entire vault, with an increase of density of the diploe, which is in excess of that to be anticipated from mere increased volume of bone.

Type IV, Hyperostosis Fronto Parietalis, has the maximum amount of thickening of the diploe at approximately the central point of the parietal and squamous portions of the frontal bones. This type produces a gentle grooving of the vault at the site of the saggital and coronal sutures.

In addition to the x-ray findings of the thickening of the inner table of the calvarial bones, the syndrome is characterized by obesity, virilism and neuropsychiatric manifestations. The obesity is usually well marked and frequently is of the rhizomelic type. However, the mammae, abdomen and mons are also frequently involved. In the cases showing virilism, this is usually manifested by hirsutism.

The neuropsychiatric manifestations on the mental side may be almost any type of mental involvement from a psychoneurosis to senile dementia. On the neurological side there may be encroachments upon the foramina through which the cranial nerves pass, or the encroachments from the bony new formations could be sufficiently severe as to produce localized neurological findings.

The symptoms which are quite generally agreed upon are headaches, memory defects, menstrual disturbances, mental changes, dizziness, weakness and easy fatigability, visual disturbances, convulsive and epileptiform manifestations, muscular defects and weakness, disturbances of equilibrium and gait, and difficulty in speech. It is quite generally agreed that the basal metabolism is decreased in these cases. In several of the cases the blood calcium has been found to be increased, while in other cases the blood calcium has been found to be normal. There is no uniformity in the other results of the blood chemistry of the cases.

While in general, blood pressure in the cases reported in the literature does not seem to be increased, there were 12 cases of the 19 in our group that showed an increased blood pressure which varied from 152/104 to 220/120.

The condition has been found associated with trigeminal herpes zoster by de Lehoczky and Orbán[5] and with Alzheimer's disease by Reider[7] and Stertz[12]; with infundibular or hypophyseal disturbances by Abély and Delmond[9] and Barthelheimer[19] and diabetes by Eisen[11].

Henschen[15] in a critical study of the subject discusses the pathogeneses according to four different theories. First, the "theory of congestion," supported by English psychiatrists, that the hyperostosis is due to congestion of the carotid artery in the course of an alternating insanity. Second, the "theory of compensation," supported by Naito and Dressler, that the hyperostosis is a compensatory bony new formation in cases of senile atrophy of the brain, and that the prolonged dorsal decubitus is of great importance in this new formation. Third, the "theory of traction," supported by Morel, that the hyperostosis is due to a traction caused by the weight of the brain and the cerebrospinal fluid. Fourth, the "theory of Paget," supported by Bonnamour and Jamin, who believe the condition to be a localized form of Paget's disease. Henschen further discusses a fifth theory which was mentioned by Stewart, and somewhat adopted and modified by Morel, this being an "endocrine theory." After a critical evaluation, Henschen appears to feel that his research tends to support the endocrine theory. However, he feels that it should be called the Syndrome of Morgagni, and take its place among other syndromes of dyspituitarism, such as the syndrome of Pierre Marie, Cushing's syndrome, and Froelich's syndrome.

Henschen, in a study of the hypophysis, noted the gland was generally large, that the nervous lobe showed increased pigmentation and basophil invasion. In the positive cases the chromophil cells were diminished in number, while the eosinophil cells were more numerous in all cases. Morel found certain lesions in the infundibulum and the floor of the third ventricle, while Henschen attributed these lesions to senility.

Bearing in mind the symptom complex, the author selected twenty-seven women. One male was selected from the men's department since his obesity was quite marked and it appeared that if it were found in males, it should occur in this case. These cases were selected on the

[18] Canavan, M. M.: Enostoses of the Calvarium. *Arch. Neur. & Psych.* 39: 1: Jan., 1938, p. 41.

[19] Bartelheimer, H.: Hyperostosis Frontalis Interna as Symptom of Hypophysial Diabetes. Abstract *J. A. M. A.* 112: 14: p. 1372 (Sept. 30, 1939).

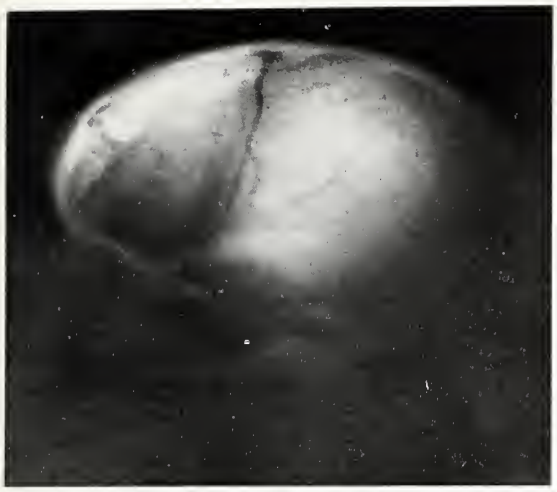


Fig. 1—Lateral view of skull showing Type I Hyperostosis Frontalis. Note thickening of inner table of frontal bone with nodular deposit of bone.

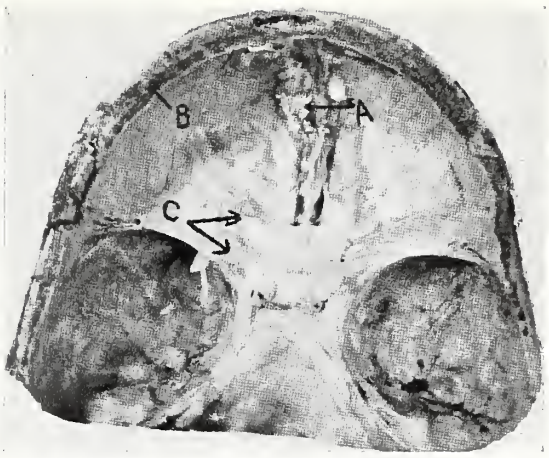


Fig. 2.—Base of skull of types I, II and III mixed case. A—nodular deposits of bone on inner table of frontal bone. B—thickened diploe. C—spots where dura was firmly attached and torn when removing brain.

basis, first, of obesity, second, hirsutism or other coarse masculine features, and third, any intimation of endocrine dysfunction. There were 28 cases selected for x-ray examination. Of the 28 cases so selected, 9 were found that had no evidence of hyperostosis from the x-ray examination. The 19 cases that showed hyperostosis by the x-ray examination showed quite a varying degree of thickening, and in some the thickening was rather generalized. These cases were classified as follows, according to the classification of Moore[1]:

TABLE I

Type		*Number of Cases*
I.	Hyperostosis frontalis interna	9
I.	Mixed	3
II.	Nebula frontalis	2
II.	Mixed	1
III.	Hyperostosis calvariae diffusa	4
IV.	Hyperostosis fronto parietalis	0
	Cases showing no bony changes	9
	Total cases studied	28

Of the 19 cases showing positive findings, there were 18 females and 1 male.

As will be noted in Table I, there were three cases of Type I mixed. One of these cases, in addition to several hyperostoses, which appeared to be sessile in character on the inner table of the frontal bone, showed a mild degree of nebula frontalis as well as generalized thickening of the whole calvarium, thus giving features of Types I, II and III. In this case the diploe appeared thickened and dense. The other two cases of Type I mixed showed rather well marked generalized thickening of the whole calvarium, so that it was felt that these cases were mixtures of Types I and III. The one case of Type II mixed, in addition to the nebula frontalis, showed some generalized thickening as well as quite a marked thickening in the parietal region with some suggestion of grooving in the frontal region. It was felt this case showed a mixture of Types II and IV with Type II predominating.

The sella turcica of these cases was studied for changes. In twelve cases it was felt that the sella turcica could be classed as normal. However, in seven of the cases it was felt that the sella showed certain features that would cause it to be classed as abnormal. In four of the seven cases, the sella appeared to be definitely enlarged over the normal size. In two cases it appeared flattened and elongated, and in these two cases the posterior clinoid processes tended to assume a more perpendicular position than normal.

One point of interest that was noted in the roentgenograms was that the coronal suture in practically every case was effaced or indistinct. On only one or two of the roentgenograms was one able to see a very short wavy shadow of the coronal suture. Since the sutures of the skull start to ossify at about the age of 40 and continue to fuse until about the 80th year, and since 11 of our cases were 55 years or under, it would appear that there is too rapid a process of ossification of the sutures of the skull. From this it appears that the pathological physiologic process which leads to the deposit of the abnormal amount of bone in the various parts of the calvarium also leads to an earlier ossification of the sutures of the skull.

A study of the cases shows the age of the youngest case was 41 years, and the oldest case was 79 years with an average age of 56.1 years. Of course, this age represents the age at which the condition was detected, rather than the age at which the condition developed. As to height, the greatest measurement was 66 inches, in two cases, while the shortest measurement was 59 inches, with an average of 63.8 inches. As to weight, the heaviest case weighed 285 pounds, and the lightest weight was 167 pounds, while the average weight was 220.5 pounds. As to time in the hospital, the longest residence was 48 years, while the most recent of hospital residence was 2 months, with an average length of hospital residence of 17.5 years. The

Fig. 3—Front and side view of patient with Type I Hyperostosis Frontalis Interna, showing body build found in the cases.

average duration of mental disturbance before admission was 9.7 years. Of the cases, twelve had been married, 7 were single, and 7 cases had borne children.

The mental diagnoses found in the cases were as follows:

TABLE II

Psychoses	*Number of Cases*
Dementia Praecox, Hebephrenic Type	8
Dementia Praecox, Paranoid Type	4
Psychosis with Mental Deficiency	4
Psychosis with Cerebral Arteriosclerosis	1
Manic-Depressive Psychosis	1
Psychosis with Syphilitic Meningo-encephalitis	1
Total	19

One of our cases upon first examination was questionable from the standpoint of hyperostosis frontalis interna, but further study showed quite a well marked generalized thickening of the whole calvarium. This case developed a coronary thrombosis and died. The calvarium and brain were removed after embalming. The brain was somewhat damaged upon removal, and has not yet been subjected to a thorough study. The calvarium in this case weighed 520 G. and the measurements showed it to be from 10-11 mm. in thickness. The diploe was about 5 mm. thick at the temporal ridges, and appeared more dense than in the normal skull as it was quite resistive to pressure from instruments. The dura was not particularly adherent to the calvarium. The floor of the frontal fossae was quite rugose and rough.

TREATMENT

It has been suggested by Moore[1] that disabling headaches or major manifestations, such as convulsions, suggesting cerebral involvement should merit the consideration of the neuro-surgeon to relieve the excess bony formation at the point giving trouble. Carr[2] treated a group of these patients with amino-acetic acid by feeding large quantities of gelatin daily. The rationale of the therapy was an attempt to relieve the marked weakness, and due to the fact that favorable results were obtained, Carr continued the use of the amino-acetic acid. Roger[6] gave ergotamine tartrate both orally and hypodermically to relieve the severe headaches of his cases, and the medication was satisfactory to the point that his cases continued taking it. There has been suggested a rachitogenic diet reinforced by the use of parathormone. Other than this the treatment has been symptomatic and empirical.

The treatment of the cases reported in this paper has been symptomatic since being in the hospital. It is most difficult for the writer to conceive of any treatment that will relieve the condition in the cases here presented. Until more is definitely known of the cause, and the pathogenesis, the treatment will necessarily remain symptomatic and empiric.

COMMENTS

In the consideration of the theories of pathogenesis, the theory of congestion does not appear sound since only one of our cases had a manic-depressive psychosis which corresponds to the term of alternating insanity. Likewise, the theory of compensation and the theory of traction do not appear sound, since these cases have all been up and around the wards and not bedfast, except for one case who recently fell on the floor and sustained a fractured femur. Further, the cases here presented have had mental disease with mental deterioration for an average period of 17.5 years, and since only one case had a mental diagnosis of psychosis with cerebral arteriosclerosis, it then appears hardly tenable that the syndrome develops as a compensatory mechanism in cases of senile atrophy of the brain. The theory of a localized Paget's disease seems pretty well ruled out by the fact that Paget's disease involves the outer table of the skull. Further, Fine points out in discussing Salzer's[4] paper that Paget's disease involves mainly the outer table and diploe, with irregular circular areas of increased density, and that the trabeculae being exaggerated, gives the skull a "cotton-wool" appearance. From the foregoing and from the fact that the sutures of the skull are ossified earlier than normal, it would appear that the proper theory as to the pathogenesis is in either the field of the endocrines or in the field of metabolism.

On first thought from the cases presented here it might be taken that the roentgenographical findings were just incidents in the progress of the mental diseases represented, and that these inci-

dents were accidentally found by a curious inquisitive physician, whose interest was aroused by an article he had read in a journal. If such were the case, why are there not more mental cases showing the condition? Also, why are there such a large number of cases that do not come from mental hospital population being reported by various investigators? Also, why do the great majority of the cases reported in the literature fall in one clinical type?

It is the intention of the author to continue the study of these cases to determine more factual data, if possible, to attempt to throw more light upon the syndrome.

SUMMARY

1. A short review of the literature on hyperostoses of the calvarium has been presented.
2. Of 28 cases, selected because of their clinical type, 19 on x-ray examination showed evidences of calvarial hyperostoses.
3. A preliminary study has been made of these 19 cases.

APPENDICITIS WITH MULTIPLE ABSCESS OF THE LIVER AND OTHER COMPLICATIONS WITH RECOVERY*

J. K. BERMAN, M.D.

H. L. EGBERT, M.D.

INDIANAPOLIS

I. SURGICAL PATHOLOGY OF APPENDICITIS AND PERITONITIS

Within the past few years volumes have been written upon the subject of acute appendicitis. Coincidentally many changes have occurred in the concept of the disease. The role of obstruction[1] has been amply demonstrated as an important causative factor in its production and the effects of peritonitis have been interpreted in an entirely different light than previously.[2] In spreading peritonitis the loss of blood plasma through the dilated and more permeable capillaries is seen to cause a hemoconcentration and later an anoxia of local tissues as well as the entire organism. The effects of this are perhaps as important as the results of the associated toxemia and bacteremia with which the organism is more able to cope.[3]

By referring to the charts in this case, it is seen that a daily study of the red blood count shows that the toxemia of peritonitis is not due entirely to the absorption of bacterial endo- or exotoxins. It will be seen that, at the time the disease was spreading, blood counts were over five million and blood protein was low, whereas, when the capillaries became sealed, after forty-eight to seventy-two hours, the hemoconcentration was relieved and the red blood counts returned to lower levels. Some of this change, of course, was due to plasma transfusion.

II. DIAGNOSIS

The diagnosis of acute appendicitis has also undergone revision. Surgeons are keenly aware of the variability of symptoms and signs and of the altered position that the appendix may assume due to congenital mal-rotation and non-decension. A flat plate film of the abdomen reveals the position of the cecum which is dilated due to a local paralytic ileus. This informs the surgeon of the exact position of the cecum so that he may be guided in the interpretation of signs and symptoms and also in the site for his incision.[4]

The diagnosis of the patient's condition is aided greatly, not only by physical examination, but by blood counts and urinalyses. Chief in importance is the presence of hemoconcentration due to loss of plasma, as revealed by the hematocrit (per cent of packed red cells), plasma proteins, and blood chlorides. These three factors must always be considered in determining whether whole blood, blood plasma, or crystalloid solutions are needed. The white blood count, when studied in regard to Walker's Index (per cent of polymorphonuclear cells compared with total white count), reveals the ability of the body to withstand the infection. A study of the urine will rule out such conditions as pyelitis and impending diabetic coma; and one must remember that the presence of acetone bodies may be due to dehydration and starvation.[4] X-ray examination aids in the diagnosis of such complications[5] as subphrenic and liver abscess by reveal-

---

* From the Department of Surgery, Indiana University School of Medicine, and the surgical service of the James Whitcomb Riley Hospital.

[1] Wangensteen, O. H., and Dennis, C.: Experimental Proof of Obstructive Origin of Appendicitis in Man. *Ann. Surg.* **110**:629, 1939.

[2] Gatch, W. D., Gery, R. E., and Ballenger, F: Management of Advanced Appendicitis in Childhood, with Observation on Blood Concentration Due to Peritonitis. *J. A. M. A.* **114**:1839, 1940.

[3] Berman, J. K.: Synopsis of Principles of Surgery, St. Louis, 1940, C. V. Mosby Co.

[4] Berman, J. K.: Laboratory Aids in Diagnosis and Treatment of Abdominal Emergencies. *J. Ind. State M. A.* **33**:298, 1940.

[5] Eliason, E. L., Brown, R. B., and Anderson, P. P.: Pyogenic Liver Abscess. *Pennsylvania M. J.* **41**:1147, 1938.

ing an elevation of the dome of the diaphragm and its restricted movement.

III. TREATMENT

The treatment of appendicitis and its complications is now being reinvestigated. One of us has pointed out[6] the importance of immediate operation in the treatment of this disease and has called attention to the fact that to prevent a spreading peritonitis the acute focus must be removed, if possible, and adequately drained. No doubt in some instances operation must be delayed sufficiently long to bring about an improvement in the patient's condition, by such measures as blood and plasma transfusions and intravenous medication. With the help of the x-ray to guide the surgeon in making the incision, practically all are agreed that a small muscle-splitting incision is preferable. One of us has called attention to this fact previously and has frequently urged the adoption of the McBurney incision[6] which may be placed high or low according to the location of the cecum.

A new concept in the treatment of complicated appendicitis which we wish to present at this time is that the surgeon has often been doing too little at the time of operation rather than doing too much. Immediately following the onset of the spreading peritonitis, the infected exudate gravitates to the pelvis and paracolic gutter. Here it is quickly walled in by delicate adhesions between the visceral and parietal peritoneum made up principally of plasma fibrin. These adhesions trap collections of infected fluid which ultimately may become pelvic, paracolic, or subphrenic abscesses. These adhesions are not leukocytic barriers (pyogenic membranes) and do not imply localization by the forces of local immunity; they are merely a mechanical isolation of the contents by nature in an effort to prevent their spread. We believe that these collections should be evacuated and drained at the time of operation even though it is necessary gently to separate the delicate adhesions referred to. To do so does not spread the infection, but it does prevent the formation of abscesses and subsequent complications.

IV. COMPLICATIONS

Perhaps the most serious complication of appendicitis is the occurrence of pylephlebitis. This may be suspected clinically by the occurrence of chills and fever (as was done in our case) and always implies the possibility of infected thrombi breaking loose and causing liver and subphrenic abscesses.[7] In addition, it is well known that these complications may occur by direct continuity, through the hepatic artery accompanying a general septicemia, through the portal vein, the bile ducts and the lymphatics.[5,8,9] It is perhaps safe to assume that in most cases it is due to a spread by the portal vein rather than by the other routes mentioned. It was previously assumed by many pathologists in explaining empyema following subphrenic or liver abscess that small holes existed in the diaphragm which permitted a spread of infection by continuity to the pleural cavity. It is now believed that the infection is carried through the lymphatics, or, in neglected cases, by actual perforation. This case exemplifies the production of liver abscess by infected thrombi from a suppurative pylephlebitis which occurred on the sixth post-operative day, and which caused an enormous rise in temperature accompanied by chills, abdominal rigidity, and high leukocytosis. The spread to the pleural cavity took place, no doubt, by lymphatic permeation. According to most authorities, multiple abscess of the liver occurs in about 0.3% of cases with perforative appendicitis and is almost one hundred per cent fatal.[5,10,11] The case we are reporting is important because it illustrates recovery not only from this complication but also from subphrenic abscess, multiple pelvic abscesses, pneumonia, and empyema.

It is interesting to note that blood cultures were negative. This has been adequately discussed by other authors who point out that it is perhaps due to the detoxifying action of the liver, and that the blood cultures only become positive when the hepatic veins are involved.[7]*

V. AIDS IN THE TREATMENT OF THESE COMPLICATIONS

The diagnosis of spreading pylephlebitis is made by the presence of severe toxemia, chills and fever, slight jaundice, and elevation and fixation of the diaphragm. Our case shows the importance of frequent x-ray and fluoroscopic examination, particularly the latter. Daily blood counts together with periodic hematocrit readings, blood protein and chloride determinations guided us in the use of whole blood, plasma, and other intravenous medication. Oxygen to control the anoxemia, which accompanies shock caused by these complications, was invaluable. In addition bacterial smears and cultures from collections of pus aided greatly in determining the type of chemo-therapy

[6] Berman, J. K., and Clark, E. D.: Consideration of Treatment of Complicated Appendicitis (Variously Grouped as Perforated, Gangrenous, and Suppurative Appendicitis, Appendicial Abscess, Local and General Peritonitis). *J. Ind. State M. A.* **28**:329, 1935.

[7] Hawkes, S. Z.: Thrombophlebitis of Appendicial Vein Complicating Acute Appendicitis. *Surg., Gynec., and Obst.* **66**:62, 1938. Pylephlebitis Complicating Appendicitis, Editorial, *J. A. M. A.* **110**:816, 1938.

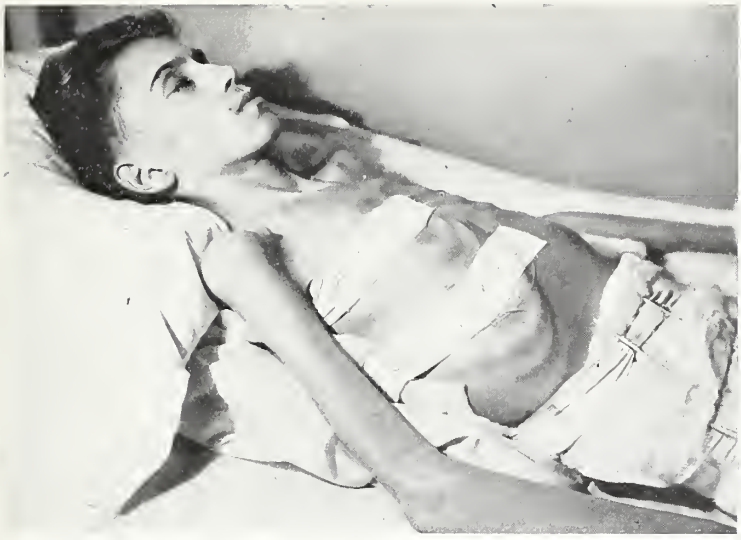
* One of our cases which came to autopsy showed sterile abscesses in the liver.

[8] Keefer, C. S.: Liver Abscess: Review of 85 Cases. *New England J. Med.* **211**:21, 1934.

[9] Ochsner, A., DeBakey, M., and Murray, S.: Pyogenic Abscess of Liver: Analysis of 47 Cases with Review of Literature. *Am. J. Surg.* **40**:292, 1938.

[10] Ottenberg, R., and Berck, M.: Sulphanilamide Therapy for Supurative Pylephlebitis and Liver Abscesses. *J. A. M. A.* **111**:1374, 1938.

[11] Howard, R. N.: Portal Pyemia Following Acute Appendicitis: Case of Multiple Liver Abscesses with Recovery. *Australian and New Zealand J. of Surg.* **10**:31, 1940.



A. Clinical photograph taken on 5-22-40 showing great emaciation.

B. Clinical photograph taken on December 18, 1940, showing present condition.

to employ. In this case the use of sulfapyridine for the pneumonia and sulfanilamide for the streptococcic infections, we believe, was helpful. We are not sure whether or not the pneumonia on the left side was in any way related to the direct spread of the disease (although patchy pneumonia is seen not infrequently in peritonitis), nor do we feel that it was caused by pulmonary emboli by way of the hepatic veins.

VI. CASE REPORT

M. B., a white boy of 13, was admitted to the James Whitcomb Riley Hospital on March 4, 1940. His past history revealed that in November, 1939, he had experienced severe pain over his entire abdomen, especially in the right upper quadrant, from which he recovered after several days.

His present illness began five days before admission with cramping pain in the abdomen followed by vomiting. He had had no cathartics and his pain had ameliorated for several hours before he came to the hospital.

Physical examination revealed a generalized abdominal tenderness, especially in the right lower quadrant. The entire abdomen was rigid and no bowel sounds could be heard. Rectal examinations revealed extreme tenderness in the right pelvis.

Laboratory studies at this time showed the white blood count to be 14,000 per cu. mm. with 88% polymorphonuclear leukocytes (Walker's index 4/18), of which 23 were immature cells.* His red blood count was 4,040,000 per cu. mm.

He was given an intravenous injection of 500 cc. of normal saline with 5% glucose and taken to surgery where a gangrenous appendix was removed through a McBurney incision. The stump was ligated but not inverted and multiple Penrose drains were inserted. The pelvis and right paracolic gutter were not explored. Culture from the free pus which was present in the peritoneal cavity revealed non-hemolytic streptococci.

The day following operation the abdomen was soft and bowel sounds could be heard. Three days later a pelvic abscess was palpated which ruptured spontaneously into the rectum. Following this the patient's condition improved until the sixth post-operative day, at which time the patient had

---

* Walker's index is a guide to prognosis. Ten thousand white blood cells per cubic millimeter may be considered as an average normal blood count; of this number about 70% are polymorphonuclears. The change in the total number of leukocytes indicates the resistance of the patient; the per cent of polymorphonuclears indicates the virulence of the organism. If the patient has a great resistance the white count ought to go up. For every increase of 1% in the polymorphonuclears there should be an increase of 1,000 in the white cell count. Expressed as a ratio, the normal index (with 10,000 white cells and 70% polymorphonuclears) is 0/0. If the total is 11,000 and the per cent of polymorphonuclears is 71%, the index is 1/1. In severe streptococcic infections there is a high per cent of polymorphonuclears. If the index is 1 or higher, the prognosis is good; if it is below 1, it is not so good. If the total count is 30,000 and the polymorphonuclears 84%, the index would be 20/14. The resistance is high and the virulence low. Daily counts should be made and the trend carefully charted. The use of sulphamide therapy may lower the leukocyte count temporarily and this should be taken into consideration. This was not apparent in the case herein reported.

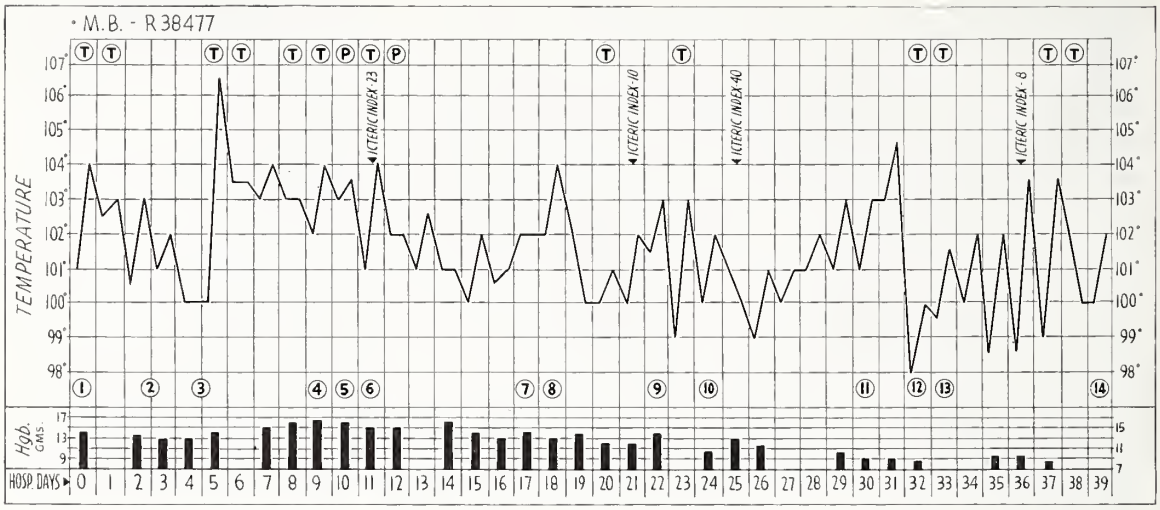


Chart I

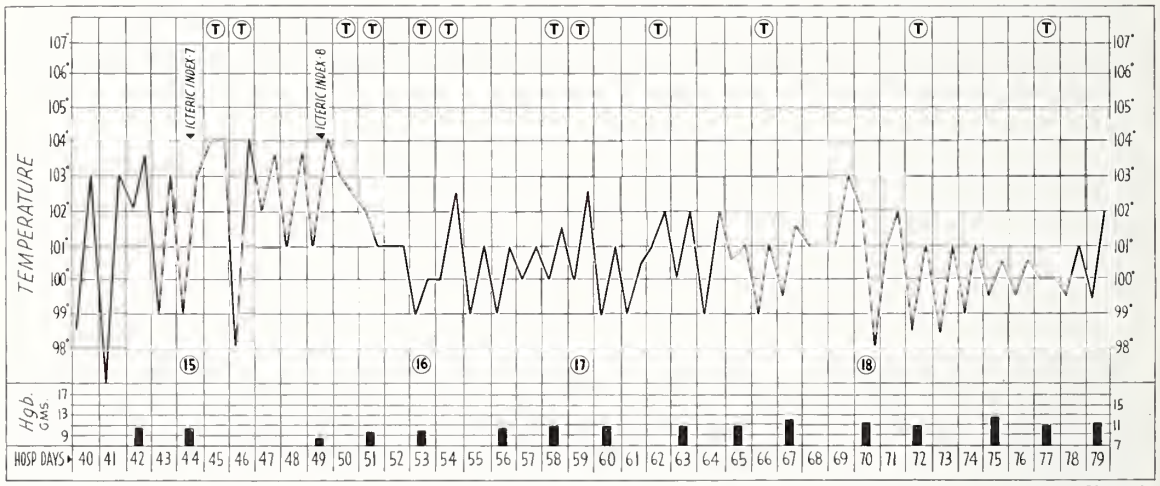


Chart II

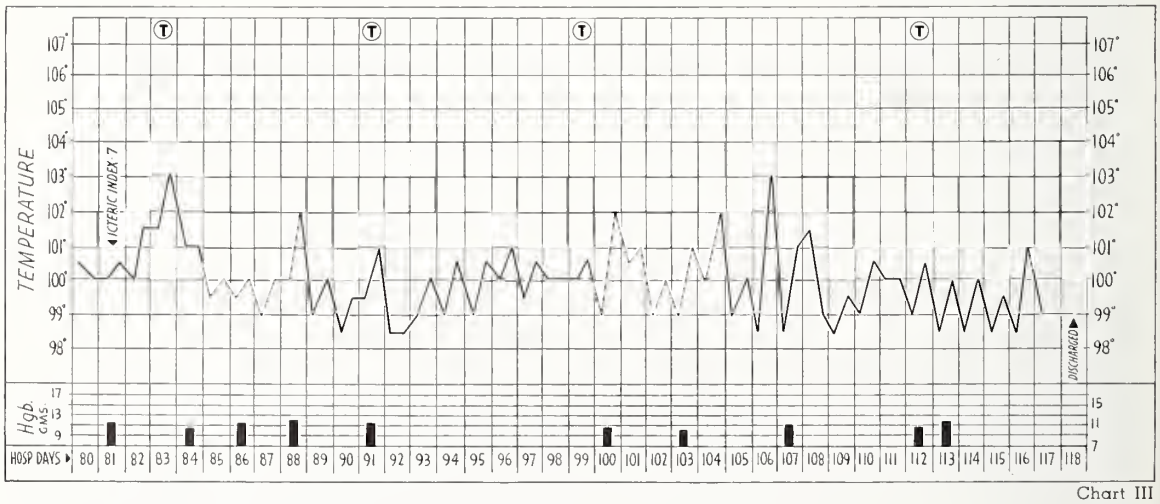


Chart III

Charts I, II, III, diagram illustrating temperature curve and important events and complications in the progress of the disease.

T—Blood Transfusions.

P—Plasma Transfusions.

a chill, temperature of 106° F., and cyanosis. Hemoconcentration and all the signs of shock were present. There was slight abdominal rigidity with absence of bowel sounds. A diagnosis of pylephlebitis was made, with possible embolus to the liver. Following this episode the temperature was septic in type and three days later there was fixation and elevation of the diaphragm and extreme tenderness over the subphrenic space. The boy was taken to surgery and under local anesthesia an incision was made between the 10th and 11th ribs and the abscess drained. It contained a large quantity of thin, foul pus which showed colon bacilli and non-hemolytic streptococci.

Two days following this the patient became dyspneic, was deeply cyanotic and his heart was displaced to the right. Fluid and air were found to be present in the right pleural cavity. Definite jaundice was present and the icteric index was 23. Aspiration of this fluid revealed a clear, watery exudate which apparently was sterile.

Six days later pneumonia was found in the left base. This was verified by x-ray examination. The patient was placed in the oxygen room and treated with sulfapyridine and blood transfusions. He recovered promptly from this complication.

On the twenty-second post-operative day a subcutaneous abscess developed medial to the incision. This was evacuated under local anesthesia and a large quantity of foul pus, containing colon bacilli and streptococci, was evacuated. The icteric index at this time was 40.

On the thirty-first post-operative day another pelvic abscess was drained through a left muscle-splitting incision. A urinary fistula developed two days following this evacuation because the abscess was found between the posterior wall of the bladder and the rectum and had eroded almost completely through the bladder wall. The fistula finally healed after many days of catheter drainage.

On the forty-fourth post-operative day another subphrenic abscess was encountered over the left lobe of the liver. This was attacked by partial resection of the tenth rib and drainage. At this time two abscess cavities were seen on the surface of the liver, which had ruptured into the subphrenic space. An empyema cavity was now found along the lateral aspect of the right chest about five inches above the costo-phrenic angle. It was well localized and was drained several days later by partial resection of the sixth rib in the posterior axillary line. The pus was also found to contain non-hemolytic streptococci. Following this operation drainage continued from all points of incision until the 29th of June, at which time drainage from the subphrenic space alone was still present.

Shortly after this the patient was discharged from the hospital and has been seen in the outpatient clinic within the last month. He is now entirely well and has regained his previous weight.

Careful study of the chart will show that a total of thirty-six blood and plasma transfusions were administered, early to prevent shock and later to combat infection, amounting to 10,750 cc. of blood and plasma; also, that frequent intravenous injections were administered to aid in combating dehydration and starvation, and that a total of 46,900 cc. were administered. In addition large doses of vitamins were given to prevent avitaminosis.

VII. DISCUSSION

The important lessons to be derived from a study of this case are the following:

1. Immediate operation is the only method of treatment in acute appendicitis provided the patient is in condition to withstand the procedure.

2. Adequate preparation of the patient before surgery is imperative. This consists of deflation by duodenal tube when necessary, intravenous normal saline and glucose, and blood transfusion.

3. A flat plate of the abdomen is useful, both in diagnosis and treatment. In the former case it enables the examining physician to apply the clinical findings to the exact position of the appendix. In the latter it enables the surgeon to make the McBurney incision, which is always desirable, directly over the inflamed appendix.

4. The importance of breaking down delicate adhesions which are sufficient to trap quantities of pus in the pelvis and in the right paracolic gutter. We believe there is danger of doing too little rather than too much in early spreading peritonitis. Had we in this case inserted a tissue forceps into the pelvis and drained it with several Penrose drains the many complications might not have occurred.

5. The inestimable value of parenteral fluids adequately controlled by repeated hematocrit, blood protein and chloride determinations, and supplemented by whole blood and blood plasma as indicated. This insures the proper osmotic index and prevents anoxia and "water intoxication."

6. The use of oxygen by inhalation for the treatment of associated anoxemia and the relief of intestinal distention.

7. The fact that multiple abscess of the liver is a dangerous complication, but not necessarily fatal. We are sure that this patient had at least two liver abscesses and probably more.

8. The fact that a subphrenic abscess is best drained after thorough localization. This may require from five to eight days. To wait insures a descent of the liver and an ascent of the diaphragm often obviating the necessity for the transpleural approach.

9. The importance of sulfanilamide and sulfapyridine as useful drugs in the treatment of a bacteremia which accompanies a spreading peritonitis. In this case a solution of sulfanilamide was employed in the irrigation of the large abscess

cavity in the right para-vertebral space. This seemed to be unusually slow in healing and it was felt that perhaps the solution had something to do with the healing of the inflamed area.

10. The realization that the law of fistula applies to urinary fistula as a complication following the evacuation of a pelvic abscess. This law stated is as follows: If the normal channel is open, the artificial channel will close, with four exceptions:

a. Tuberculosis.
b. Fungous infections.
c. Neoplasm.
d. Instances where the mucous membrane of the organ involved has grown to the external skin.

In this case a catheter was anchored insuring a normal outlet and the fistulous tract closed spontaneously.

11. Nutritional requirements are important to promote repair and to prevent states of avitaminosis. Adequate amounts of vitamins B, C, and D were given in this case.

THE CONSULTANT*

E. O. ASHER, M.D.
NEW AUGUSTA, INDIANA

Consideration of this subject should first take into account the patient and his family. When a person becomes a patient he not only presents some physical disorders, but his whole mental attitude is likely to be one of anxiety, distortion and humiliation. In such a state of conflict, his effort to conceal his apprehension may be manifested by an outward display of bravado, and likely rebellion to all suggestions kindly offered by his relatives and friends. The composure of an entire household is broken up by serious illness of a member of a family. In serious illness a consultation may be desired by the patient, by the family, or by the doctor in charge.

Medical consultation is called in for several reasons. Briefly, they are: (1) for diagnosis in puzzling cases, (2) for advice in treatment, (3) for suggestions as to management, and (4) for assistance in making a statement as to prognosis.

The consultant should not be called until all history, physical findings, and laboratory examinations are completed. X-ray, if indicated, should be reported upon by that department before such consultation. Thus is the case ready to present to the consultant for his consideration. Very often, when the case is worked up along careful lines of investigation, the diagnosis is made before help arrives. In that case, the consultation evolves into a confirmation of diagnosis. This reflects to the credit of the doctor in charge. Such a situation is thus ideal.

Confusion and humiliation easily enter surroundings in which a patient is not as carefully studied as the doctor in charge is competent to do. He is not always at fault in this delay as many patients hesitate to spend money for services. Many do not have money to spend. A consultant is seldom denied the privilege of extensive accessory measures as aids in diagnosis. Once the consultant is in, the sale is made. Even when all expensive tests are reported negative there is seldom a remonstrance about the cost—except to the family doctor. Consultants should, therefore, use care in conservation of the limited resources of sick people.

In some cases a consultant is rushed in before there is time to work up the case.

Consultations for help in treatment and management have three purposes—

First, for the genuine effort to obtain help for the patient.

Second, to share the responsibility of caring for a seriously ill patient.

Third, to satisfy the patient or the friends in contact with the case.

A doctor becomes a nuisance to consultants when he gropes about cloak rooms and hall-ways seeking free opinions. He usually states:

"I will have you see this patient in a day or so." He seldom does. This is not of much value to the patient and certainly not profitable to the consultant. If a consultant is contacted for his help in treatment and management, he should at least be invited to visit the bedside and view the patient.

When a decision is made to call in a consultant, a problem arises as to who should be called. Whenever possible the doctor should indicate his choice first, at least as to the kind of consultant suitable. If left to the family, a dangerous spot is left open. Once the family is fixed on some one objectionable, it is difficult to avoid the choice they have made. If the undesired consultant is decided upon and is used, the doctor may wait a few days, when, if the case still needs help, he can obtain his choice for the asking.

The doctor in charge arranges the best set-up for his particular patient and his surroundings. Some of the most satisfactory consultations are had between the men in general practice. There are some objections to this, as each of you can recall disagreeable uneasy situations when counsel

* Read before the Indianapolis Medical Society, April 22, 1941.

has come whom you find to be unprepared to be of real help to your patient, for reasons too numerous to mention.

A consultant is chosen for the genuine help he is expected to give. He must by personality suit the type of patient to be served. It is difficult to have him accepted by the family if he is too young, and likewise if no one has ever heard of him. Some patients know all the possible consultants by their first names. Those are usually difficult patients to please.

Objectionable traits noted:

1. Consultants may, and do have, complexes the same as the rest of us. At times this comes to light at the bedside. The symptoms include:

a. "When I was in Vienna . . ., Mayos, or Boston . . ."

b. "My last 20 cases like this . . ."

c. "The president of First National and Senator So and So looked like this." (This is dangerous for the patient may know they both died.)

d. Gloomy seriousness of attitude such as long time inspection of patient's hands, pointing out cyanotic nails, fingering open an eye and gazing at a pupil, then putting the lid gently back in place in true mortician's manner.

e. Undue efforts to be gloriously funny in a sick room.

2. Here is a serious charge, but unfortunately it does occur. The consultant gradually and imperceptibly takes possession of the patient. Noah Webster calls that stealing. In such deals the consultant loses in the long run; any general practitioner can take care of that.

3. Failure to discuss the fee with the doctor before presenting a bill. A fee too little can be as damaging to the prestige of the family doctor, as when the consultant makes an obvious overcharge.

The ideal consultant in the sick room must, first of all, be informed. Then he must be human, friendly, deliberate without apparent haste, render an opinion guardedly, leave a little hope when possible, and when the business at hand is over—go.

Surgical consultants, and those of the various specialties are used for diagnosis and also for the skilled service they are expected to render the patient in further conduct of the case. Parts of this discussion apply to any man in those special services.

One should not fail to appreciate valuable consultant service rendered the general practitioner by hospital internes and residents. They are there for a definite purpose and should be encouraged to help, and they do help.

In conclusion, if you are intending to have counsel, please call your consultant in time that he may arrive before the patient is dead.

ABSTRACT

SAY ARTIFICIAL FEVER IS PREFERABLE TREATMENT FOR PARESIS

A five year study of 232 patients with dementia paralytica, also known as paresis, a chronic syphilitic disease of the nervous system involving the brain, who were treated with either malaria or artificial fever leads Jack R. Ewalt, M.D., and Franklin G. Ebaugh, M.D., Denver, to conclude that artificial fever is the preferable treatment, they report, in *The Journal of the American Medical Association* for May 31.

They point out that "There is nothing unique in the use of either malarial therapy or artificial fever, the former having been advocated by Wagner von Jauregg's original report in 1917 and the latter by C. A. Neymann and S. L. Osborne in 1929."

However, there has been some skepticism about the treatment value of the artificial fever method by which temporary elevations of a patient's temperature may be induced by placing him in a cabinet for carefully controlled periods of time.

In the cases studied by Drs. Ewalt and Ebaugh, patients were assigned to the artificial fever or malaria series in alternation as they were admitted to the Colorado Psychopathic Hospital and Clinic. The follow-up treatment in both groups was as nearly identical as possible.

"The method of treatment with artificial fever has been safer and has been productive of better results," the two physicians declare. "The importance of follow-up care is emphasized. Improvement in the care of patients during malaria treatment and more attention to follow-up medication has improved the results of malaria treatment in our clinic, although the results still remain inferior to the results obtained with artificial fever threatment.

"Patients with the physical contraindications to therapeutic malaria may, in many instances, be safely treated with artificial fever therapy. Either method is reasonably efficient if properly managed and if general follow-up treatment and care are adequate.

"The results are good with both methods in the mild cases and treatment becomes progressively less effective as the severity of the process increases. . . ."

ENDOMETRIAL TISSUE IN AN INGUINAL HERNIA

REPORT OF A CASE

STEPHEN J. DONOVAN, M.D.
MICHIGAN CITY

The term "endometriosis," as coined by Sampson[1] in 1922 has been generally accepted to indicate the growth of endometrial tissue in an ectopic position. The growth of this tissue in the groin is unusual, and in a hernial sac it is rare. Polster[2] in 1926 reported finding only 34 cases of adenomyoma of the round ligament in the literature. Most authorities believe his figure is too low. Counseller[3] reporting 884 cases of endometriosis, Hill[4] 135 cases, and King[5] 122 cases, mention no case where the tissue was found in the groin. Judd and Foulds[6] in reporting 484 cases had three with aberrant endometrium in the groin and Smith[7] one in 159 cases.

Cullen[8] in 1896 in his paper, "Adenomyoma of the Round Ligament," was the first definitely to identify endometrial tissue arising from a point distant from the uterus. In a paper on the same subject two years later, he mentions cases by Pfannenstiel and by Blumer, which had appeared following his first report. There are cases recorded by Sampson,[9] Lemon and Mahle,[10] Mahle and MacCarthy,[11] and others.

Cullen[12] believes that adenomatous or endometrial tissue, found in the groin, is the result of embryonic inclusions. Sampson[13] believes that this tissue, with or without associated hernia, is misplaced there by one of three methods:

(1) A direct extension along the round ligament from a peritoneal endometriosis about the abdominal inguinal ring.

(2) Metastatic through the lymphatics or veins secondary to a peritoneal endometriosis invading the vessels accompanying the round ligament or from a primary uterine endometriosis or even endometrial tissue escaping into the uterine vessels during menstruation.

(3) Implantations in a hernial sac.

Cullen[14] in 1916 was also the first to report a case of adenomatous tissue in an inguinal hernia. Since then Harbitz[15] has reported three cases, Neel[16] two, and cases have been reported by Sampson[13], Christopher[17], Palmer[18] and others.

CASE REPORT

The following case is reported in detail because it was not until her third operation that the cause of the patient's symptoms was found and removed. The author believes this case should have been diagnosed correctly by him much sooner than it was and her symptoms alleviated more promptly.

Mrs. M. S., a married, white female, 39 years of age, was first seen on March 20, 1940. Her chief complaint was that of pain in the abdomen. She stated that eight years before, while lifting a heavy basket of clothes, she suddenly developed left lower abdominal pain, confined to the groin. This pain persisted for several days and was severe enough to necessitate bed rest. It was an intermittent, stabbing pain, bearing no relationship to work, meals, menstrual periods, or bowel movements. Several weeks after the onset she was operated upon by another physician, and an appendectomy and a partial right oophorectomy were performed. The left side of the abdominal cavity was said to have been inspected at the time of the operation, and reported to the patient to be normal. No tissue report is recorded. Her convalescence from this operation was uneventful, but the pain persisted. Three years later she had a perineal operation, and the patient stated that the same physician "took out some of the womb, and fixed the bladder and rectum."

The same complaint of pain in the left lower quadrant of the abdomen existed following this operation. Her menstrual periods were regular, every twenty-eight days, seven days in duration, with a heavy flow of blood. For the past five years she noticed that the pain in the left lower quadrant would let up about a week and a half before the period was due and with the advent of the second day of her menstrual period would return, decreasing in severity to cessation ten days before the next period. This cycle had gradually become

[1] Sampson, J. A.: *Am. J. Obst. & Gynec.* **4**:451, 1922.
[2] Polster, K. O.: Quoted by Neel.
[3] Counseller, V. S.: *Am. J. Obst. & Gynec.*, Vol. 36, No. 5, P. 877-888, Nov., '38.
[4] Hill, L. L.: *Am. J. of Surgery*, Nov., 1932.
[5] King, W. W.: *Brit. M. J.* **2**:573 Obst. & Gynec. Sect. 1924.
[6] Judd, E. S. & Foulds, G. S.: *Surg. Gynec. & Obst.* **37**:648-652, 1923.
[7] Smith, G. V. S.: *Am. J. Obst. & Gynec.* **17**:806-814, 1929. Quoted by Neel.
[8] Cullen, T. S.: *Johns Hopkins Hosp. Bulletin.* May, 1896.
[9] Sampson, J. A.: *Am. J. Obst. & Gynec.*, X, No. 4, P. 462, 1925.
[10] Lemon, W. S. & Mahle, A. E.: *Med. Clin. No. Am.* **8**:1125-1135, 1925.
[11] Mahle, A. E. & MacCarthy, W. C.: *J. Lab. & Clin. Med.* **5**:218, 1919.
[12] Personal communication.
[13] Sampson, J. A.: *Am. J. Obst. & Gynec.* XII, No. 4, P. 459, 1926.
[14] Cullen, T. S.: *Surg. Gynec. & Obst.* P. 258, March, 1916.
[15] Harbitz, H. F.: *Acta. chir. Scandinav.* **74**:1-400, 1934.
[16] Neel, H. B.: *Surgery*, Vol. 2, P. 769, November, 1937.
[17] Christopher, F.: *Ann. Surgery* **86**:919-921, 1927.
[18] Palmer, A. C.: Quoted by Neel.

worse until the pain was almost constant, with the exception of a day or two before the period ended. During the past year, on four occasions, she had had a normal second menstrual period during one month. This second period would begin on the seventh day after the cessation of the first, and would be of the same duration and the same amount of flow. There was no increase of pain associated with this period, and it was only in this manner that she recognized an abnormal second period. Two years ago she noticed, for the first time, a lump in the left groin. This had gradually become larger and exquisitely tender. Bed rest had been required during her menstrual periods for the past two years because of pain. No special type of work made the pain any worse. She had been unable to wear a corset because the presence of the stays would hurt severely in the left groin when she would bend over. Sometimes she was unable to sit down because of the pain in the left groin, and she was unable to ride in a car because of pain when in the sitting position.

Her menstrual periods began at the age of 15, and were always regular every twenty-eight days, with a hard flow of blood lasting seven days. The periods were still regular except for the four occasions mentioned above. Her last menstrual period began on March 10, 1940, and was normal in all respects. The past history was essentially negative except for diphtheria and measles as a child with no complications. A tonsillectomy had been done at the age of 20. Her general health had always been excellent.

The patient was a well developed and moderately obese, white female, about the stated age of 39. The thyroid gland was not palpable, tonsils were absent, and the heart and lungs were normal. Abdominal examination showed an old low midline scar, which was well healed. In the left inguinal region there was an irregular, extremely tender, mound of tissue, about 7.5 cm. long in the axis of the inguinal canal, and about 2.5 cm. wide. This mass was located medial to the internal inguinal ring. The mass was fixed, non-reducible, and gave the impression of a group of matted glands. It was located above the inguinal ligament. There was a definite impulse on coughing over the internal ring, with marked increase of pain over the mass. Pelvic examination showed a marital outlet, and an old perineorrhaphy scar. Second degree cystocele and rectocele were present, neither of which protruded because of the tightness of the introitus. There had been a cervical amputation with the stump in good condition. The fundus was forward, normal in size, position, and mobility. The adnexal areas showed no abnormality.

The laboratory findings showed a normal urine, white blood count, red blood count, hemoglobin, and differential count. Serology was negative.

On June 15, 1940, the patient was operated upon in St. Anthony Hospital under ether anesthesia. The preoperative diagnosis was incarcerated omentum in a left indirect inguinal hernia. The usual left herniorrhaphy incision was made. Dissection was carried down to the external oblique fascia. There was an irregular dense mass of tissue adherent to the under surface of this fascia. The mass was irregular in outline and contour, located in the axis of the inguinal ligament, and about 7 cm. in length, 5 cm. wide, and 2.5 cm. in diameter. Dissection was carried out about this mass to isolate it. It was all above the shelving edge of Poupart's ligament, and looked inflammatory in nature. The main mass of tissue cut with difficulty, much like neoplastic material, and interspersed through it were areas where it was rather edematous and glistening. In two places there were small cysts about .5 cm. in diameter containing dark brown fluid. The internal ring, lateral to the mass, was opened, and found to be about 3 cm. in diameter. There was nothing protruding through the internal ring. The peritoneum around the ring was normal in color and consistency, and could be followed down the inguinal canal for a distance of about 2 cm., and then lost its identity about the mass of tissue. The round ligament could not be identified at its lower end. The peritoneum about the internal ring was dissected free, the ring closed with silk, and the excess removed. The entire mass was then removed down to the conjoined tendon, and the transversalis fascia, taking with it a portion of the external oblique which could not be dissected from the underlying tissue. Repair of the abdominal wall was done with interrupted silk sutures, sewing a double layer to the shelving edge of Poupart's ligament. The cut edges of the external oblique fascia was repaired with a double layer over the first two rows of sutures. Subcutaneous silk and silk to the skin completed the operation.

Pathological study of the material revealed that, "The wall of the sac was lined by low flat cuboidal epithelium. No stroma surrounded the epithelial lining. Section from the firm mass reveals this to be made up of smooth muscle, in which are found endometrial glands surrounded by definite endometrial stroma. Pathological Diagnosis: Endometriosis, which in view of the presence of an abundance of smooth muscle, might represent accessory uterine tissue."

The patient's postoperative convalescence was uneventful, and she was discharged from the hospital on June 27, 1940, with the wound healing by first intention.

Since leaving the hospital, she has had no pain at any time. The wound healed without incident. Her periods have been regular, every twenty-six to twenty-eight days, lasting six to eight days. She has been up and about, doing her work since shortly after leaving the hospital. At the time of this report the patient has been followed through eight periods.

117 West Seventh Street

This is the sixth of a series of articles on Indiana's "twelve great killers." In 1940 there were 2,345 deaths from Bright's disease in Indiana. Next month the article will deal with Arteriosclerosis.

BRIGHT'S DISEASE

IRVINE H. PAGE, M.D.*
INDIANAPOLIS

The physico-chemical constancy of the body fluids, the plasma and lymph, is a necessary condition for life independent of environmental vicissitudes. The trusteeship for this constancy has in a large measure been given to the kidneys. Therefore, the observation that derangements due to renal disease are both common and important should cause no surprise.

The kidneys are often thought of as excretory organs, concerned alone with freeing the blood of waste products and maintaining its water and electrolyte content at normal levels. Recent work suggests that they also liberate substances into the blood stream which possess physiological activity. In particular I refer to substances which, freed in the blood, elevate arterial pressure, leading to fixed hypertension. Not only do they secrete substances into the blood but they produce by chemical action changes in materials brought to them. As examples of the latter, one thinks of the neutralization of acids by ammonia formation or the de-amination of amines.

The activities of the kidneys encompass both the metabolic and excretory, and to emphasize one at the expense of the other is to distort the framework into which the facts of both the normal and morbid must be fitted into a harmonious whole. The phenomena of Bright's disease lend themselves readily to exact and logical analysis and so epitomize the meaning of contemporary clinical physiology and biochemistry.

Fortunately, knowledge of this disease is emerging from the stage of nosology. It no longer seems profitable to think of classification alone, but classification we must have. The one I have preferred, largely on the basis of clinical usefulness, is slightly modified from Fishberg, Addis and Van Slyke, who in turn modified it from Volhard and Fahr, who in their turn doubtless provided suitable modifications from the then existing body of knowledge. What may appear to be a rather heterogeneous collection of morbid states are included under the heading of Bright's disease largely because of their similar clinical and, indeed, in most cases, pathological manifestations. By using the appellation *Bright's disease*, rather than *nephritis*, the problem of the inflammatory or degenerative nature of the morbid changes does not arise.

BRIGHT'S DISEASE

Benign Proteinuria—Including orthostatic proteinuria and congestive heart failure. Proteinuria of pernicious anemia, thyroid disease, diabetes, fever, etc.

1. *Nephrosis:*
   - (a) Necrotizing—Following heavy metals such as mercury, bismuth and hemoglobinuric following transfusions.
   - (b) Acute syphilitic.
   - (c) Chronic—Socalled "lipoid nephrosis."
   - (d) Amyloid.
2. *Nephritis:*
   - (a) Glomerulonephritis.
     1. Acute.
     2. Chronic—including the nephrotic stage.
     3. Terminal.
   - (b) Focal nephritis.
   - (c) Acute interstitial.
   - (d) Pyelonephritis.
   - (e) Perinephritis.
3. *Glomerular embolization*—From whatever cause but chiefly associated with subacute bacterial endocarditis.
4. *Senile arteriosclerotic kidneys.*

Most of these diseases I shall not discuss. They are interesting but, for the most part, contribute more to understanding of the mechanisms of renal disease than to the mortality caused by it. Benign proteinuria deserves attention, if only to exclude it from the category of serious diseases, for it should never be forgotten that inherent in the diagnosis of chronic glomerulonephritis is the knowledge that it is a progressive disease which must end fatally. Confusing benign proteinuria with the chronic stage of glomerulonephritis, therefore, invites disaster.

BENIGN PROTEINURIA

Benign Proteinuria is believed to be due in some patients to postural alterations of renal blood supply associated with increased mobility of one or both kidneys, usually the left. It must be distinguished most commonly from glomerulonephritis and pyelonephritis.

THE DIAGNOSIS OF BENIGN PROTEINURIA

History—The occurrence of edema, bloody urine, blurred vision, hypertension, or other symptoms and signs of glomerulonephritis eliminates the diagnosis of benign proteinuria. Clearly it is of first importance to search the history carefully for these signs. It should also be ascertained whether pus has been observed in the urine and, if so, whether it has arisen from the kidneys, bladder or urethra.

* From the Lilly Laboratory for Clinical Research, Indianapolis City Hospital, Indianapolis.

Physical Examination—If proteinuria is to be considered benign, the eyegrounds must be normal. Especial attention should be paid the condition of the blood vessels. The size of the heart must be normal. No tumors should be felt in the region of the kidneys. Small, polycystic kidneys have at times been the cause of what was supposed to be benign proteinuria. Arterial blood pressure should be normal.

Laboratory Examination—To determine whether proteinuria is of postural origin, the patient empties the bladder one hour after going to bed at night and discards this specimen. The bladder is again emptied before rising. Now the knee-chest posture is assumed for one-half hour and a specimen of urine again voided. No protein should be found in the first and a small amount in the second specimen if the proteinuria is of postural origin.

To confirm the orthostatic nature of the proteinuria, lordosis in the erect posture may be corrected by a well-fitted corset or frame. Standing under these circumstances should not result in proteinuria.

A second confirmatory test consists in having the patient rest for several hours with a sand bag under the small of the back to elicit lordosis. Protein should be found in the urine formed under these circumstances.

To make more certain the correctness of the diagnosis, urea clearance should be normal and the urinary sediment should not contain more than normal numbers of casts and red and white blood cells. The latter may best be ascertained by counting the number of formed elements in a specimen of urine passed during the last 12 hours of a 24-hour period during which all free fluids are withheld from the patient. This constitutes the so-called Addis count. If active renal disease is present the numbers of formed elements will be increased.

If further investigation is desirable, retrograde pyelograms may be made. It is not unusual to observe moderate hydronephrosis, aberrant blood vessels, or other anomalies which might be concerned in the genesis of the proteinuria. It is interesting to have the x-rays taken with the catheters in place in both the recumbent and erect postures. Occasionally it can be demonstrated that abnormal motility of a kidney is responsible for the proteinuria. If ureteral catheterization is done, specimens of urine should be collected from the catheters in both the recumbent and lordotic postures and examined for protein. The left kidney is usually the offender. It is wise also to culture 10 cc. of urine from each kidney. Microscopic examination of the separated urine specimens may show increased numbers of white blood cells from one of the kidneys, ordinarily indicating infection.

It is worth remembering that urine specimens should be filtered before examination to eliminate pus cells as a possible source of protein. Further, that the demonstration that lordosis increases proteinuria does not necessarily indicate that the proteinuria is benign since lordosis also increases it in frank cases of Bright's disease. It is for this reason that the tests outlined may well be employed to distinguish benign proteinuria from the proteinuria of Bright's disease.

ACUTE BRIGHT'S DISEASE

The acute stage of Bright's disease usually follows days or weeks of infection in other parts of the body or it may occur during the course of the infection, for instance, during pneumonia. The most common organism concerned is the beta hemolytic streptococcus. Edema of the face, oliguria and hematuria are usually the clinical signs which bring the patient to the physician. Examination discloses any or all of the following: Proteinuria, hematuria, pyuria, edema of the face and ankles, sore throat, fever, tachycardia, slight or moderate elevation of arterial pressure, normal or slightly reduced urea clearance, and maximal ability to concentrate urine, and occasionally morbid changes in the eyegrounds.

The acute stage of Bright's disease is clinically

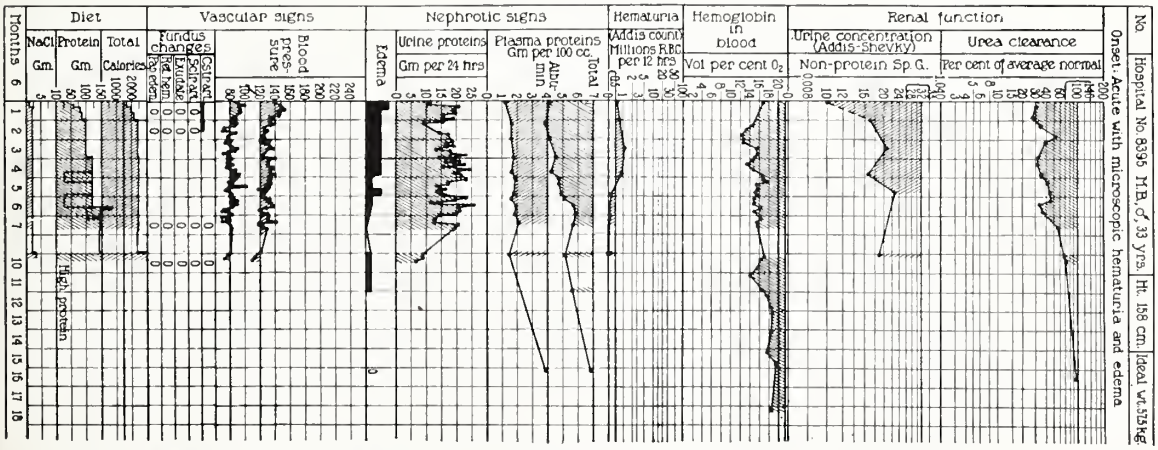


Figure 1. Recovery of a patient with acute Bright's disease. Note especially the progressive recovery of urea clearance, hemoglobin and plasma proteins.

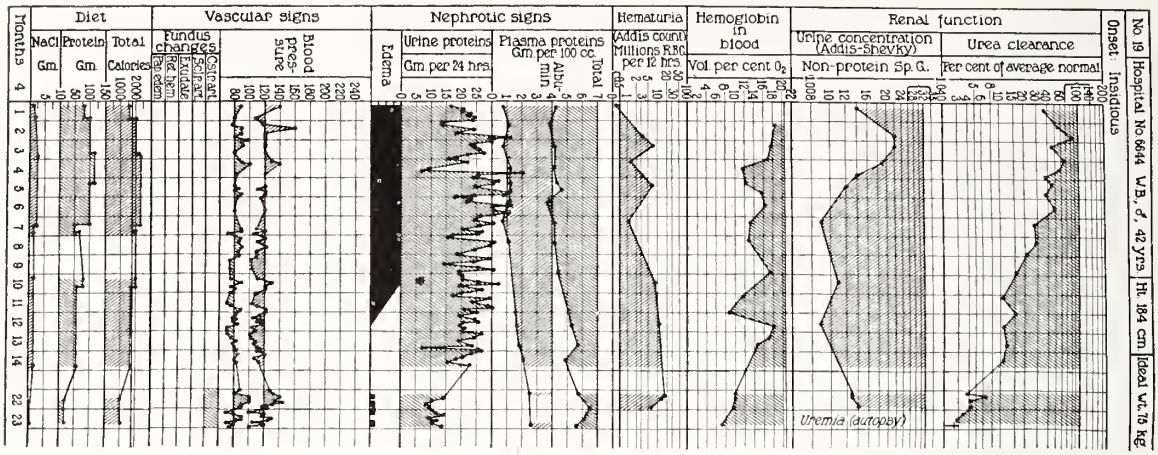


Figure II. Progress of a patient with chronic Bright's disease. The onset was insidious. Especially to be observed is the close correspondence of urea clearance with the downhill progress of the disease. Note the terminal rise of plasma proteins with disappearance of edema.

the most important of its phases because here it may be possible to prevent its progression into the chronic stage. This is not the place for discussion of treatment,[1] but I would be remiss not to emphasize one point: treat Bright's disease relentlessly during its acute stage with every proper means at hand until it has either healed or become chronic.

CHRONIC BRIGHT'S DISEASE

If urea clearance, plasma proteins and hemoglobin do not tend toward a normal level within, roughly, nine to twelve months after the acute onset of the disease, it may justly be concluded that the chronic stage has supervened. Chronic Bright's disease always ends in death. Its diagnosis places a heavy responsibility on the physician.

Chronic Bright's disease usually begins, not as an aftermath of a clearly defined acute stage, but insidiously as an ill-defined series of symptoms which neither the patient nor the physician usually associate with their true significance. It is highly doubtful if there is an "acute stage," the chronic one appearing subtly with, at most, uncertain warnings.

The most common sign is edema, especially of the dependent portions of the body. Examination may reveal proteinuria, hematuria, reduced renal efficiency, anemia and hypoproteinemia. Arterial hypertension may or may not be present. If it is, and is moderately severe, abnormal constriction of the retinal arterioles and some hard white exudates often occur.

The nephrotic stage of chronic Bright's disease is merely one in which extensive edema, marked hypoproteinemia, lipemia and proteinuria suggest the clinical picture of true lipoid nephrosis. Indeed the similarity extends to the absence of abnormal

[1] Page, I. H.: The Management of Bright's Disease. *J. Ind. State Med. Assoc.*, **33**:337 (1940).

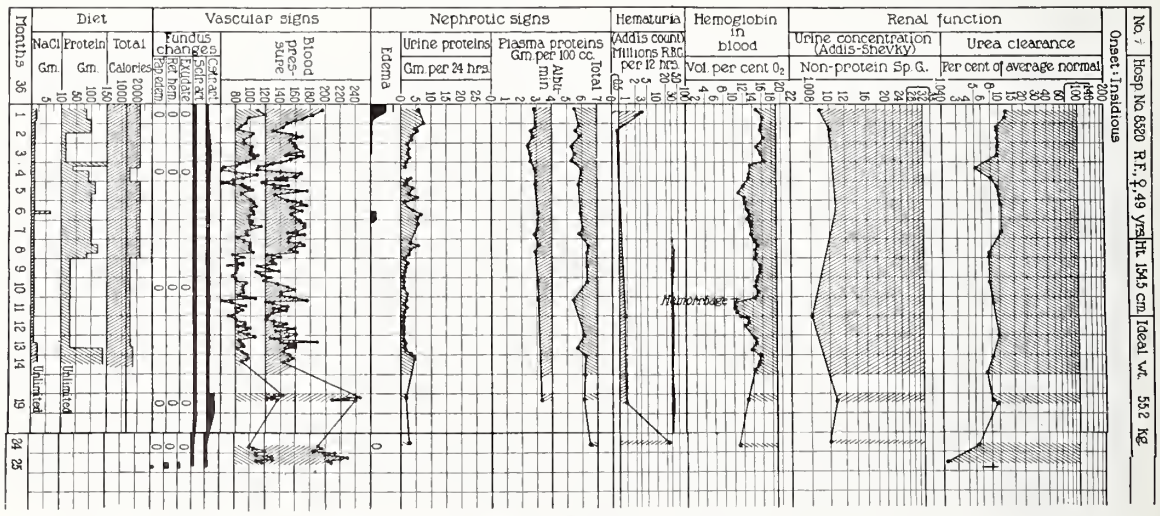


Figure III. Terminal stage of chronic Bright's disease. Death was abnormally delayed in this case. Note the terminal rise of plasma proteins and the marked rise in arterial pressure with intensification of the morbid changes in the eyegrounds.

numbers of red blood cells in the urine. Patients suffering from the nephrotic stage of chronic Bright's disease suffer the same fate as those in whom this phase has not appeared. It is an impression that the course of the disease is prolonged.

TERMINAL STAGE

The terminal phase has been defined by Van Slyke[2] as that in which the urea clearance is less than 20 per cent of normal. Clinical observation has justified the usefulness of this criterion.

The onset of this phase is indicated by a rise of the plasma protein content from a low to a near normal or normal level. Correspondingly, edema may disappear, unless it is replaced by the edema of heart failure. Polyuria may lead to washing out of large quantities of chlorides from the tissues because of loss of tubular reabsorptive capacity. Unless the usual chloride restriction of the chronic stage is relaxed, hypochloremic uremia may supervene. The blood pressure may rise sharply. This is reflected in more extensive morbid changes in the eyegrounds such as hemorrhage, papilledema, arteriolar constriction and exudate formation. As death approaches, heart failure with dyspnea and acidosis add to the burdens of the patient. Acidosis is due chiefly to reduction of fixed acids, excretion, and inability of the kidneys to form ammonia. I need hardly stress that all manner of substances which are normally excreted accumulate in the blood leading to such bizarre clinical signs as "urea snow" on the skin of these unfortunates.

The diagnosis, prognosis, and treatment of patients with Bright's disease have reached such a degree of clarity and certainty as to become a source of some satisfaction to the students of medicine. From this body of knowledge may rise the fulfillment of Claude Bernard's dream of maintenance of the *milieu interiur*, Cannon's homeostasis, and Bright's desire to heal the sick.

[2] Van Slyke, D.D., Stillman, E., Muller, E., Ehrich, W., McIntosh, J. F., Leiter, L., MacKay, E. M., Hannon, R., Moors, N. S., and Johnson, C.: *Medicine* 9:257 (1930).

Annual Convention

Indiana State Medical Association

A CLINICAL DAY FOR THE ANNUAL SESSION OF THE INDIANA STATE MEDICAL ASSOCIATION

It has been the custom for many years to set aside the day prior to the sessions of the Indiana State Medical Association for sports such as golf and trap shooting. While many of our members enjoy this day of sports, some would prefer to come for clinics. This has been tried in other associations and found to be very satisfactory. Therefore, the committee for the September session has decided to institute a clinical day this year. This will be held on the first day of the session, Tuesday, September 23, which has heretofore been used exclusively for sports. It is the hope of your committee that the clinics will be so diversified as to attract men from every field as well as those in general practice.

Clinics will be held at the Indiana University Medical Center and at the Indianapolis City Hospital. The regular staffs serving at the time the clinics are held will participate, and in addition other members will assist in presentation of interesting cases.

Announcements concerning the clinics, giving the exact time, subject, and speaker will be published at a later date and will be available to those who register on this day. The Association earnestly hopes that our membership will take advantage of the vast amount of clinical material available for study in Indianapolis. It is our hope that this may become an annual, integral part of the sessions of our Association.

Any suggestions will be welcomed and may be sent directly to the office of the Association.

CLINIC COMMITTEE
J. K. Berman, M.D., Chairman

Indianapolis, September 23, 24, 25, 1941

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Mrs. J. S. Skobba, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
Edgar F. Kiser, M.D., Indianapolis.....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne.....Dec. 31, 1941
James F. Balch, M.D., Indianapolis.....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette.....Dec. 31, 1942
Herman M. Baker, M.D., Evansville.....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie.....Dec. 31, 1943

JULY, 1941

Editorials

NEPHRITIS

Much progress has been made in recent years in the prevention and treatment of some of the so-called "killer" diseases. This is notably true in pneumonia. What about the fate of the nephritic? Has his lot been improved upon in recent years?

The answer to that question depends entirely on the viewpoint. It cannot be denied that our concept of the pathology of the nephritides is much clearer today; there are more accurate means for studying the functional capacity of the kidneys, thereby increasing the prognostic possibilities. In this direction, therefore, real advances have been made. From the therapeutic standpoint, however, we cannot boast much, although the epoch-making work of Page and his associates may very soon change the status in one type of the disease.

The simplest classification of nephritis is based on the anatomical units of the kidney involved. Thus we have, (1) glomerular or hemorrhagic nephritis (focal, diffuse and chronic) caused by acute infections, in the majority of instances streptococcic; (2) degenerative (acute and chronic) involving chiefly the tubules and occurring during the course of diphtheria, septicemias, pregnancy, and neoplastic degenerations in the body; (3) arteriosclerotic nephritis, either latent or active.

Important contributions to treatment of groups 1 and 2 are as follows: (1) Drugs for promoting diuresis have been withdrawn and water in desired amounts used for its diuretic effect; (2) adequate nourishment is considered of great importance. Food intake as for a normal individual of the same age and activity should therefore be allowed. This should include sufficient protein to replace the loss of plasma proteins. (3) While chlorides may be reduced or omitted entirely for short periods, restriction for long increases the danger of nitrogen retention. (4) Organic mercury diuretics may be used occasionally where the cardiac element may be responsible for edema. Their use in disturbed kidney function is dangerous.

Much experimental work has been done in the arteriosclerotic or hypertensive type of nephritis, notably by Goldblatt and by Page. These experiments showed that the kidneys, under conditions of disturbed blood supply, develop "pressor substances" which produce arterial hypertension corresponding to primary arterial hypertension in man. By a gradual ischemia of the kidneys, caused by varying degrees of arterial constriction, disturbance of renal function ultimately results.

In the research department of the Eli Lilly Company, Doctor Page has isolated a drug which he is now using on patients of this type with results which have made him very hopeful. If and when Dr. Page's work is completed and made available for general use, the sufferers from this malady may find relief which until now they have sought in vain.

DR. LAHEY'S ADDRESS

We wish that every physician in this country would read the address of Dr. Frank Lahey, incoming president of the American Medical Association, delivered at the recent Cleveland meeting. Stanch admirers of Doctor Lahey recognize his ability as a surgeon, as a teacher in the field of clinical surgery, and as an executive, and his rare ability as an entertaining after-dinner speaker is well known. In the present instance the man has outdone himself. He made a comprehensive address which covers practically the entire field of medicine and of national economics, and in the covering the speaker uttered pronouncements that may well be heeded not only by members of the medical profession but by many in high positions of state.

In brief introductory remarks, he directs attention to the fact that his term as presiding head of our parent organization comes at a period of "uncertain and urgent times," times when above all else sane, level-headed thinking and actions are vitally necessary. He then launches into the consideration of the role American Medicine is playing and will have to play in the present national emergency. He speaks of the questionnaires sent out to 186,303 physicians, of which more than 150,000 have been completed and returned to the A.M.A. headquarters. Of these latter, 146,000 have been tabulated and "catalogued," so that the government may in a trice have full information as to what can be expected from us.

He directs attention to mistakes made in the medical services incident to the last World War

and points out how such mistakes may be omitted in the present instance. One of the things he has in mind is that medical men be assigned to the work for which they are best adapted, rather than merely being sent to this or that post. He then stresses the importance of seeing to it that medical training be not overlooked and that recent graduates in medicine be given full opportunity for intern training. He points to England where medical students not only are exempt from the draft but are not permitted to volunteer.

The United States graduates some 5,000 physicians yearly; some 3,800 physicians retire from practice every year, for various causes. As Lahey points out, no one can foretell just how long this present emergency will continue, nor can he say as to just how many physicians will be called to Federal service, hence it is vitally important that the source of supply remain undisturbed. The speaker then refers to the part medicine is playing in the Selective Service Act, he himself being a member of one of these medical boards.

As was to be expected, Dr. Lahey pays his respects to our system of medical education; long has he been recognized as one of our better teachers. More than once it has been expressed, "As a teacher, he is a 'natural.'" He has observed that in the field of surgical teaching there is a difference between teachers of surgery and teachers of clinical surgery. He says, "It has seemed to me that clinical surgeons are too apt to overvalue their clinical experience and technical skill and so unjustly depreciate professors of surgery doing a limited amount of actual surgery and a considerable amount of surgical teaching and experimental investigation." A bit later in the address he says, "I am convinced that to teach surgery one must be busily occupied with the actual problems of surgery, that to be able to stimulate an interest and curiosity in surgery the teacher of surgery must be able to discuss the subject with his students not in terms solely of literature, theory, or laboratory, although this is essential, but in terms of large, actual experience."

Dr. Lahey has some decided notions regarding anesthesia. He believes that operative procedures could be made more safe for the patient and that fewer complications would result if the standards of anesthesia were elevated. He maintains that all modern hospitals should be equipped for the more modern anesthesia, whether it be that of the commonly accepted type, or whether it be endo-tracheal, field block, or what-not. In answer to the statement that many hospitals do not have especially trained medical anesthetists, he states, "It is my distinct conviction in many instances that this is due to the fact that many hospitals employ nurse anesthetists at relatively low salaries, with a profit to the hospital."

Postgraduate education is given extensive consideration, many of his suggestions being of such a high order that the various state associations having postgraduate study as a part of their program may well take heed.

The "crowning glory" of this address is Dr. Lahey's discussion of "War Between Capital and Labor" and "Social Gains and Preservation of Democracy." Lahey long has been recognized as a student of economic conditions, both within and without the profession of medicine; few physicians equal his ability to intelligently discuss these questions. Speaking of the European situation, in closing, he said: "My own opinion, and I believe it my duty to express it, is that we already are committed to a position, whether we like it or not. I myself like it. We have dared the dictator. It is too late to appease him, and the word has no meaning in his language. We should arrive at a conviction concerning isolation. Is it right? It is my conviction that it is not. I prefer destruction if it need be to survival in cowering terror. Give me positive commitment rather than compromising, unsatisfying safety."

The Lahey address is a comprehensive document; in a brief space of time he has described our present position, and he points the way out for the future. We commend it to every member of the profession.

WE HAVE FRIENDS

There has appeared an increasing number of press comments regarding matters medical throughout Indiana, practically all of which are highly complimentary to the medical profession. These comments, coming at a time when we are so beset by various organized groups, serve to hearten us no end. Ten or more years ago such material was not found in many Indiana newspapers, and the chief reason for this was that we had not yet learned to take our people into our confidence. Now that we have broken down that reserve, that misconception so many doctors once had to the effect that there was a mysterious side to the practice of medicine and have learned to talk "right out in meetin'," we learn with a great deal of pleasure that we have a large following in the newspaper field.

During the past sixty days we have accumulated clippings from scores of Indiana newspapers covering a wide range of subjects—from a discussion of the Federal Court decision in the suit against the American Medical Association, et al., down through comment on recent medical and surgical discoveries, and practically a symposium on what to do about medical enlistments in the United States Army. This latter subject, by the way, is ably handled by Indiana editors; they seem to have given the matter much thought and to have studied the problem along with the medical profession.

It would be impossible to mention all the articles that have come to our attention or to name all

the papers that have printed them. However, mention might be made of some of them. The Muncie *Press* makes editorial comment on "The Great Warrior, the Medical Man." The Goshen *News* uses an editorial from the Indianapolis *Star* in regard to the verdict against the A. M. A.

Over in Terre Haute, the *Tribune-Star* writer talks about "Doctors and the War"; down in Evansville the *Courier* gives an interesting resumé of the findings to the effect that while it may at times be advisable to cut down on starchy foods, "Spuds Help the Doctor," and the editorial comments on the discovery that a certain potato enzyme is of material benefit in certain bodily ills.

The Culver *Citizen* gives space to a weekly health chat, copy for which is supplied by members of the Marshall County Medical Society. In the issue coming to our attention the subject was "Need for Prenatal Care." The Kingman *Star*, in an editorial, "Guarding Our Health," talks convincingly about periodical health examinations.

The Muncie *Star* takes cognizance of the fact that many Hoosier doctors are being called for Army service and is concerned because of the fact that some Indiana communities may be left with inadequate medical care. (This problem is being worked out by the Indiana State Medical Association and its solution, we believe, will be satisfactory to all concerned.)

The Williamsport *Review-Republican* discusses "Physical Standards in the Army." The editor speaks of some cases in which noted athletes, mentioning "Hank" Greenberg of the Detroit ball club, in particular, and Johnny Rigney of the Chicago White Sox. Speaking of the examinations made of these men he says, "the baseball industry, for instance, has experienced some unpleasant publicity because some of their star athletes have gone before draft board physicians who have delivered the verdict that these supposedly perfect physical specimens were coming apart at the seams."

The Bloomington *Student* comments on the "health council" which was organized by the local medical society. The Michigan City *News-Dispatch* tells of the new V-D clinic recently set up at the Kingsbury shell loading plant, while the Bloomfield *Word* editorially comments on the "tremendous amount of work being done in draft board examination." The editor states that it would take one doctor six or seven years to make all these examinations.

The Bloomington *Star* bemoans the fact that "Local Medical Ranks are Thinned by Army Call." The editor of the Anderson *Herald*, in a brilliant, scintillating large-type-double-spaced editorial, "Industrial Health," pays The Journal a compliment by quoting from an editorial in our *Industrial Health* number. He also takes advantage of the occasion to talk about the need for more hospital space in Anderson.

So, we might go on at great length telling of what the Indiana press has to say about us and our work. The point we wish to make is this—the medical profession of Indiana finally has gotten the ear of our newspapers; we have been able to convince them that the Indiana State Medical Association's chief aims are to raise the standard of medical practice within the state and to serve as guardians of the Public Health. We wish we might have the time to acknowledge every one of the comments that come to us from all over Indiana and trust that local medical society members will, from time to time, call on these editors and express our appreciation for their kindly assistance.

JUST WHAT DOES THIS MEAN?

A release from the Federal Security Agency, United States Public Health Service, for May third, states, "Recommendations that Congress authorize the United States Public Health Service to treat men rejected for general military service because of correctable physical defects was made by the 39th Annual Conference of State and Territorial Health officers yesterday, at the close of a four-day session. . . . Pointing out that nothing has been done on a national scale towards rehabilitating men found unfit for military service, the Conference's Committee on hospital and medical care urged legislation by Congress, providing funds, as well as authority, to the Public Health Service to accept rejected draftees as beneficiaries eligible for medical treatment, upon application to the Surgeon General."

It seems, in this connection, that this committee went away out on a limb when they made the declaration that *forty-two* percent of all draftees are rejected for military service because of physical defects, many of them correctable. We have noted various figures as to the percentage of rejections, but nothing that approaches this astounding figure; we do not believe it is correct.

The Conference makes many other recommendations, among them one to the effect, in the matter of venereal disease control, a Federal project, that states in which Federal funds are being used for this purpose should be authorized to cut off such funds from counties in which the local police authorities fail to repress prostitution. It is no doubt true that because of the concentration of thousands of our young men "the presence of prostitutes is equal to one percent of the population of such centers." It also is true, as charged by the Committee, that as a result of this situation the spread of venereal disease is likely to be enhanced.

At present our concern is with the proposal to have the U. S. Public Health Service "take over"; and to exercise absolute control in the matter of the rehabilitation of the rejected draftees.

This is no new problem, this thing of what to do with the physically unfit. It was not a new

problem at the time of World War I, though the draft examination of that period brought the subject to our attention in a manner more forcible than ever before. Ever since the Age of Man we have had the physically unfit; throughout Nature we see the same thing, though Nature has *her* way of doing things and sees to it that only the fit survive!

After the close of World War I, there was a great to-do about this thing, and governmental agencies were wrought up about it; the press of the country demanded that the medical profession take over the problem, and that the medical profession soon put into operation the machinery by which this thing might be done, but we failed to see these defectives surge into our offices and hospitals. In fact, only a very small per cent of the rejected men, even though they had been advised of their trouble and had been told that it could be remedied, sought such relief.

It was our belief then as it is now that *you cannot force human beings to be healthy!* The medical profession, aided most loyally by the press of the country, can point out the advantages of being fit and can strongly recommend that all defectives do this or that, but that is about as far as we can go. There is no law that will *make* a rejected draftee submit to medical or surgical treatment and so long as he can carry on, making his way by his own efforts or, as too often is the case, "live off the fat o' the land" via the charity dispensers, most of these will do just that thing.

We are reminded of one of hundreds of similar instances, a young man in his late twenties, able bodied and physically fit except for a hernia. This hernia served to keep him out of a job in the steel mills and he did not look elsewhere; thus, for several years past he has accepted the largess of his community, plus an occasional donation from a member of his family. Came the draft, and another rejection. Still he has his hernia and does not care to have an operation, *because an operation would put him back to work!*

There are thousands of such cases; we all know them and we know that treatment would render them fit for manual labor and for military service. But we fail to see the necessity or the advisability of shoving this problem over to the Public Health Service. At present they do not have the means to render this service; as it is, they are hard pressed to handle the problems that rightfully belong to that division of our government. *If they should take over this job* it would mean a huge addition to their medical and surgical staff; it means, of course, another great stride toward State Medicine.

We hardly have had time to mull the problem over, but it would seem that the Public Health Service might make a survey of the matter and present their findings to the medical profession. We, of course, will be wholly cooperative in any plan to solve this big problem, just so long as our "rights" are left undisturbed. We cannot believe that the Surgeon General will agree with the Committee in this part of their many recommendations.

Editorial Notes

The Indiana University School of Business recently commented upon the municipal debt situation in Indiana, declaring it to be sound. Of course, insofar as the state itself is concerned, there is no debt. Thanks to the foresight of those who framed our present Constitution, there is not now and never can be a state debt; we pay as we go. When we look at the plight of some of our sister states, we feel like sacrificing a hecatomb or something.

Students of criminology will find much of interest in a recent report from our state prisons. This report states that a mental test given to some 600 inmates admitted during one year showed that 46 per cent of this group had a mental age of less than thirteen years. In a check on a very much smaller group received at the woman's state prison, it was found that the average mental age was a little over twelve years.

Another idol shattered! For years and years we had presumed we were immune to poison ivy. Why, back in the good old Wild Cat days, we used to take part in grubbing out this pest about the farm and through the years we have met up with rhus tox in various other communities without ever having been infected. Now comes *Hygeia* for June with the statement that "no one is permanently immune to poison ivy." Henceforth we shall sidestep this rather good-looking vine wherever we may happen to meet it.

It is now the season for wood ticks, you know, so be on the lookout for these pesky little critters. We recall that last year, after working in our flower garden, we found two of these little bugs on our person, and there immediately arose visions of Rocky Mountain fever, or something worse. Remember that Rocky Mountain fever is not at all unknown in Indiana, several cases having been reported last year. It makes one wonder; in our youthful days we did not fear this disease; in fact, we never heard of it. Nor were we concerned with "rabbit fever" and many other things that the present day individual must take into consideration, whether he is engaged in his daily pursuits or in traveling about the country.

Economic note: employment in Indiana is said to be at a higher peak than in the socalled banner year of 1929. In Indianapolis employment is up 35 per cent during the past year, while in Hammond the increase amounts to an even 75 per cent. Most of this increase is due to the unprecedented preparedness program. However, the man of fifty or more finds it hard to obtain a job unless he is a skilled worker. It is almost impossible to find competent help for house work or for employment about one's yard and garden.

A partial solution to the problem as to the status of medical students in relation to the Selective Service program has been announced. It is to the effect that all graduates of fully accredited medical schools, for the current year, will be offered commissions as first lieutenants in the Medical Reserve Corps of the United States Army. Since the regulations of the Reserve Corps require that such members shall have served a hospital year, those graduates from medical schools having the rule that an intern year must be served before the certificate of graduation is issued will be taken care of.

It seems that our capital city is to try an anti-noise ordinance. We hope it works, because if it does other Indiana cities may become copy cats. The indiscriminate tooting of automobile horns, the blaring of loud radios between the hours of eleven p.m. and seven a.m., the rattling, grating noises that emanate from automobiles improperly driven or too old to be properly driven, all these are to be taboo once the law gets under way. Most city noises, and they are legion, are not conducive to a normal peace of mind and thought, and any measures that will successfully control them have our blessing.

At long last a representative of the United States Public Health Service has made so bold as to suggest that Indiana should banish politics from the administration of its hospitals for the treatment of the mentally ill. THE JOURNAL consistently refrains from political criticism, but it is a well-known fact that a few years ago our state hospitals were filled with employees who were chosen not for their fitness for the various posts but because they voted "right." The 1941 legislature voted to stop this phase of the spoils system and it is earnestly hoped that in the future these institutions will be manned and managed by those possessing the proper ability. For several decades the Indiana state hospitals for the mentally ill were of good repute throughout the country and many of us regretted to see politics not only creep in but *move in.*

The Council of the Illinois Medical Society announces the appointment of Harold M. Camp., M. D., of Monmouth, as the editor of their *Journal,* succeeding the late Charles J. Whalen, M. D., of Chicago. Dr. Camp will continue to serve as secretary of the Illinois Medical Society which post he has held for the past seventeen years. THE JOURNAL welcomes this addition to the group of state medical journal editors, feeling that we are highly honored to have with us a man of the attainments of Doctor Camp. Few medical men are so well and favorably known throughout the country, and in his years of service to the Illinois profession he has done yeoman service for the medical profession of the country.

The May, 1941, issue of *Indiana Pharmacist* calls attention to a recent announcement issued by the U. S. Food and Drug Administration regarding the sale and distribution of certain "dangerous" drugs. It includes this paragraph: "It is our opinion that preparations containing bromides should not be sold without prescription, if the dosage provided involves the consumption of more than 30 grains per day or more than 15 grains during any 3-hour period." "The same is true of acetanilid, in the case of medicines that provide a total daily intake of more than 5 grains or more than 2½ grains during any 3-hour period." According to the *Indiana Pharmacist,* barbiturates should now be sold only to or upon the prescription of physicians, dentists or veterinarians. The complete announcement is published on page 406.

Sixty days hence we will be ready for our annual trip to the State Association convention, this time to be held in Indianapolis. Yep, we have our hotel reservation, and have had it for some months. If yours has not been made, better attend to it right now. We would remind you that this annual meeting grows bigger and better every year and 1941 promises to fairly outdo all previous efforts. Sports, entertainment and scientific sessions de luxe would seem to attract every member of the Association. Frankly, it would not at all surprise us to learn that our actual registration of members alone passed the two thousand mark! "Date" that calendar on your desk right now; tell the Missus to get all set for three or four days at the Capital City of Hoosierdom.

We wonder if the Indiana State Budget Committee by any chance learned of the action of our Executive Committee in setting a limit upon the expense accounts of our Association committee members. Or perhaps they have copied a page from the Federal government concerning such matters. At any rate, the State of Indiana definitely has

set limits as to the expense accounts of its officials and employees who scatter hither and thither about the country. Some brave soul also managed to interest the budget group in a plan to curtail the travel customs of some of our official big wigs whose custom in the recent past has been to make trips about the state in big, state-owned cars in caravansary style, led by the shrieking sirens of the motorcycles of Indiana State Police. It *does* put on a good show, we admit, but it takes a lot of employees and a lot of gas to stage such a show.

A few months ago a Gary pediatrician observed what he believed to be a new type of intestinal infection in young children. These cases had recently come into his city from a nearby southern state. He was quite puzzled about the cases and contacted our secretarial office. Immediately a bulletin was sent to all the local society members advising them of the condition and asking them to be on the alert. By a peculiar coincidence, it developed that one of our newer members had come across a very similar infection in a large group of children in that southern state last summer and, with his associates, made an extensive study of these cases. All this came out at one of the local society's Council meetings and the two physicians were asked to present their observations in an article in The Journal for August. We are sure that our members will find their observations very much worth the reading.

Paul McNutt makes the headlines almost as frequently as that other big man down in Washington, F. D. R. To his credit, McNutt usually manages to bring the Hoosier State into his picture. Only the other day Paul took occasion to talk on the subject of food. He is quoted as having said, "Out in Indiana we raise, serve and eat the best food in the world—and I defy Henry Wallace to deny it. Our Indiana porkers invariably fatten with honest pride at the prospect of becoming a part of a Hoosier meal. An Indiana farm dinner, steaming on the kitchen table, constitutes about the best combination of vitamins ever strung together." He then elaborated upon his subject, stating that "that kind of a dinner contains a vitamin you'd not find in a laboratory—the physiological vitamin of human satisfaction. I'll name it Vitamin Z—the vitamin that produces zeal, zest, zip, and ziz." Paul said just about all that can be said on such an interesting topic, hence we will say no more than that we most heartily agree with him.

On August first Dr. O. B. Nesbit will leave his post as Medical Director of the Gary schools, which position he has held since 1913. During those years Dr. Nesbit has built up a school medical inspection system that is known throughout the country. In fact, he may be said to have been one of the pioneers in this field. Notable among the achievements of his long regime is that of his work in diphtheria and scarlet fever immunization. Few men in the country have had a wider experience in this field than has Dr. Nesbit. Hundreds of thousands of doses of immunizing agents have been employed in this work, resulting in a marked lowering of these infections in the city of Gary. Possessed of a natural executive ability plus the necessary tact to "get along" with members of the medical profession, Dr. Nesbit has carried this work along through the years with practically no friction between his department and the medical profession of Gary. His contribution to preventive medicine in the school field is a notable one.

Dr. L. W. Bortree, writing in the *Rocky Mountain Medical Journal* for March, makes some interesting observations on a physical survey of the students in Colorado College. This is a small-co-educational school, located at Colorado Springs. Among the interesting observations from this survey, which was made by numerous members of the local county medical society, is the matter of tuberculosis. Thirty-one per cent of those examined were positive reactors; x-ray examinations of this group showed no active cases. Seventy-two per cent had had tonsillectomies. (The writer rather quaintly observes, "One wonders if all the 72 per cent of the tonsillectomies had been justified.") Three per cent had over-active thyroids. Rheumatic heart disease was present in four per cent. Underweight was very common among the feminine students, which fact was attributed to the demands of Dame Fashion. Three of the students objected to a serological examination; many were very anxious to have it, and this was especially true among the girls. No positive reactions were found. (College students usually average about four per cent positives.)

The United States Public Health Service is asking physicians to try a new remedy for ivy poisoning: a ten per cent watery solution of tannic acid. This solution is applied to the affected area after first washing same with alcohol. They report that itching and other discomfort ceases after one or two days and that all symptoms disappear in one week. The treatment is not to be attempted by laymen, so the Health Service says. Also, they have developed an oxidant cream containing ten per cent of sodium perborate, which is effective in preventing ivy poisoning. The cream is rubbed into the skin before the exposure to poison ivy and allowed to remain during the period of exposure. It must be washed off with soap and water and renewed every four hours. Both the tannic acid solution and the perborate ointment are said to be effective against sumac poisoning. This being the season of the year when these pes-

tiferous complaints come to the physician, it may be well to try the proposed treatments. The Public Health Service will greatly appreciate reports from our physicians as to their results with these remedies.

It has been interesting to watch a medical society grow—we refer to the Lake county society, just another one of the local groups that make up the Indiana State Medical Association. During the past three years it has not grown so much in size because a large per cent of the eligibles had joined before the "new era" set in; by that is meant the time when a full-time lay manager was engaged. The programs have assumed new meaning. They bring to the members, seven months in the year, the very latest comment on things medical and as a result our attendance has increased until at times seating capacity has become a problem. The officers have been "pepped up" and have done a lot of things to make the wheels go 'round, but the Council of the society is the group that gives the most impetus. This group of about a dozen men meets regularly every month and holds frequent special meetings requiring at least two hours of time. Practically every member of the Council is on the job at every meeting. Any organization with a dozen men who are willing to spend this much time in furthering the interests of the organization is bound to go places.

The other day we noted an official statement to the effect that at the end of the month of May the state was short some eleven inches of water in comparison with average rainfall. Farm crops show this deficiency in most sections of the state and already the possibility of a shortage of water for household and stock watering purposes is receiving much attention. Wells and springs all over the state have dried up and unless Dame Nature comes to our rescue we may see a revival of the scenes in some parts of the state when water was being hauled rather long distances for domestic use. And yet there are those who decry all this talk about conservation! It long since has been demonstrated that conservation of our natural resources is vitally essential. The destruction of our natural forests and the all-too-often unnecessary drainage of our acreage is bound to lower our water tables. But since the above was written, Indiana has been generously blessed with copious rains, practically every section of the state having had hard downpours. Yet with all this, the weather man says that the state is short several inches for 1941; our comment on conservation still holds good!

On several occasions The Journal has directed attention to a species of parasites—we know of better though unprintable names for 'em—who go about the country and offer to purchase from physicians various drug "samples." We have commented on a plan adopted by one of these groups, that of trying to interest office attendants, to the extent of asking them to write for samples, these later to be turned over to the "agents," and in return the attendant is to receive some sort of a present. Too much publicity seems to be the reason for the failure of the old plan so now they come to us with a new version, such as is discussed in *Northwest Medicine* for March. A man calls on the physician, presenting his card and advising that he represents the Glendale Biological Exchange, and that his company will exchange biological products for certain drug samples. *Northwest Medicine* points out that the "biologicals" thus obtained may not be of standard quality and that other desired points may have been overlooked in their manufacture. After all, it is but a variation of an old racket and the reputable physician should have no difficulty in turning down any such propositions.

Elsewhere in this issue of The Journal is a comprehensive report of the National Nutrition Conference for Defense as viewed by Dr. Herman N. Baker of Evansville who represented the Indiana State Medical Association at the Conference. Paul V. McNutt presided as chairman of the meeting of some 750 representatives from all over the country. The meeting continued for three days. The American Medical Association has approved the principles of the conference.

Highlights in the report are the seven questions which Mr. McNutt presented and which are given in full in Dr. Baker's report. Later in the report is mentioned one of the roles that the nation's medical profession will be asked to play, and in this we are most interested. It is made clear that medical and dental groups will be asked to participate in all state conferences.

Surgeon General Parran's remarks are worthy of study; he has outlined a program with which most of us can agree.

Probably the press of the country will carry "nutritional" stories as the work of the various state and national organizations progresses, and we urge the medical profession to be alert lest some food fanatic with wild ideas creeps into the program.

On the whole, it seems that the nation-wide nutritional campaign will bring about many desirable changes in our economic life, but we maintain that the position of the medical profession should be right up in the pilot house with the captain.

The National Society for the Prevention of Blindness has issued a bulletin concerning Fourth of July injuries. According to *The Journal of the American Medical Association*, the 1940 list of such accidents totalled 4,462. The bulletin com-

ments to the effect that "there are few exceptions to the rule that only those states which have enacted and enforced state-wide laws have shown evidence of satisfactory control." New York state seems to have led all the rest in the matter of the number of such accidents in previous years, hence we will be greatly interested in noting the results of the new law prohibiting the indiscriminate use of fireworks this year. In concluding, the bulletin makes the following observation: "On the other hand, Indiana showed a great improvement when its law against fireworks went into effect for the first time last year. There were only two injuries reported in 1940, as against 198 in 1939. The record of Indiana, in the matter of Independence Day injuries and deaths, has changed from one of the worst to one of the best."

George Crownhart, executive secretary of the Medical Society of Wisconsin since 1923, died suddenly from coronary thrombosis while in attendance upon the sessions of the meeting of the American Medical Association in Cleveland, June fifth. For many years he had served as managing editor of the Wisconsin Medical Journal. He had an insight into medical affairs such as few laymen in the country possessed; it may well be said that he veritably lived and breathed Medicine. He was an able, most convincing speaker, marshaling his evidence in a manner equal to the best of attorneys. Only recently we were reading his defense of Wisconsin Medicine before a House committee of the legislature of Wisconsin; it was a classic, equal to many other such addresses he had made before similar bodies in past years. He was an executive of the highest class, being able to align the medical forces of his organization in such manner as to make their position almost impregnable. One of his best bits of work was a survey of medical care as practiced in several European countries, this under the direction of his organization. His report upon his return was the last word on the subject. George Crownhart was a man of divers abilities; he had a host of friends throughout American Medicine and his untimely passing is universally mourned in the profession.

Maurice Early in his column, "*Day by Day in Indiana*," in the Indianapolis *Star*, writes most entertainingly of what goes on in the Hoosier state and on occasion brings to public notice matters that are of far more than passing interest to those of us whose forebears assisted in the "colonization" of the commonwealth. Some time ago he noted that a rather large tract of virgin timber, south of Paoli, was to be sold to close an estate. This land comprises some 258 acres and for the most part is covered with huge hardwood trees, one of the last remaining stands in this part of the country. Naturally, the timber interests wanted to purchase this tract but Mr. Early began a campaign to interest our folk in its preservation. The land was sold a short time ago but the purchasers have indicated that they are willing to resell it to any group that might wish to buy it for public purposes. An organization has been formed to solicit contributions for this purpose and it now seems that the timber land will be preserved for future generations. After all, there remains more than a bit of sentiment about this Hoosier State of ours.

Hiel Eugene Crum, Indianapolis "etherator" expert, had his license as a drugless practitioner revoked by the Indiana State Board of Medical Registration and Examination some time ago. He appealed from the decision of the Board, the appeal being heard in the Marion County Circuit Court. The decision was in favor of the action of the Board, the Court mincing no words in condemnation of the contraption with which Hiel claimed to be able to diagnose and treat most anything to which the human frame is heir. Among the Crum "expert witnesses" in the court hearing were "Dr." E. A. Perdue of Kansas City and Mr. Edward A. Ernest of Milwaukee. Newspaper reports of the testimony of these gentlemen was highly interesting to any one of average intelligence. The glibly talked of "chromo-therapy" and "etheronics," provided quite a show. Now we learn that both of these men are having a little brush with Uncle Sam. Seems that a post office solicitor held a hearing, last February, on the color therapy machine sold by Ernest and that a fraud order is being prepared in the case. As for Perdue, he has been on the receiving end of two such orders, one in 1938, the other in 1940, the latter being in force at the present time.

Dr. D. G. Gill, Director of the Bureau of Preventable Diseases, State Department of Public Health, Alabama, tersely cites a lot of valuable observations about the extra-genital chancre:

> "Any extra-genital lesion, that is slow to develop and slow to heal, which is accompanied by enlarged lymph glands is a chancre until proven otherwise. Herpes requiring more than two weeks for its involution, especially if it is accompanied by unilateral adenopathy, is syphilis until proven otherwise. Similarly, lesions of the fingers should be suspected of being chancres, especially when enlarged glands are demonstrated in epitrochlear or axillary areas and when the lesion seems slow to heal. It is worth while noting that of forty-nine chancres of fingers reported in the literature, thirty of these were in physicians.
>
> "Any lesion that becomes a syphilis suspect should be subjected to repeated darkfield exam-

ination of serum from that lesion. The blood should be tested each time the darkfield examination is made. If all tests are negative, the blood should be tested once a week for the first month and once a month for the next three months. If all tests are negative at the end of four months, syphilis can be excluded from the diagnosis."

In an address delivered before the United States Conference of Mayors in St. Louis, Missouri, in February, Dr. Warren F. Draper of the U. S. Public Health Service placed squarely up to the city authorities the problem of control of prostitutes operating near army cantonments. Dr. Draper said that there is "laxity, apathy and downright venality" in the failure to control prostitution in many communities where there are large army camps. It seems that the problems that confronted us at the time of the last war are still with us. To expect the city authorities in small communities, where the influx of men (some with families) to work on government projects has more than doubled the population, to control the problem of prostitution in addition to the thousand and one other problems that are suddenly thrust upon them is a bit too much. Prostitutes are traveling by the hundreds to the prospering communities—by train, by bus, and even by trailer. Dr. Draper says, "To the local governments falls the face-to-face job of controlling venereal disease. The problems they (prostitutes) create are your problems, not to be solved in your State capitols or in Washington." Well, who started this, anyway?

Dr. Irving S. Cutter will retire as dean of Northwestern University Medical School on September 1, 1941, after reaching retirement age. He has been dean of the school for fifteen years and during that period Northwestern has attained the position of one of our top-notch medical schools. In addition to the post of dean, Dr. Cutter held a full-time faculty position. He will continue to serve as superintendent of Passavant Hospital, one of the teaching units of Northwestern; he also will continue as health editor of the Chicago *Tribune* whose column, "How to Keep Well," serves as a pattern for similar columns in the press throughout the country; and he has found time to serve for many years as medical director of the Northwestern Railroad. Dr. Cutter has made a very enviable record in the years since he came to Chicago from Omaha. As a teacher, as an executive, and as a writer he has commanded unusual attention in medical circles, and as a speaker he has been universally recognized for his quaint wit and for pronouncements that revealed an intensely intimate knowledge of his subjects. Now THE JOURNAL joins with Dr. Cutter's host of friends in acknowledgment of his many services to Medicine, and we trust that in his new post as dean emeritus of Northwestern University Medical School he may continue to give effective service to that institution. Dr. Cutter's successor as dean is Dr. James R. Miller of the Department of Medicine, Northwestern University Medical School.

Arthur A. Hargrave, octogenarian editor of the Rockville *Republican*, recently was a guest at a large Indianapolis hospital. During his stay there we enjoyed his comment in his weekly newspaper, where he conducts a column under the title "Club Man Talk"—interesting reading it is, too. A litle while ago he took occasion to speak of his recent hospital experiences: "My experience proves that a big hospital is about as noisy as a machine shop in full blast and I wonder how nervous patients stand it. I thought a hospital was about the quietest place one could find in a large city. It isn't." We have had no "inmate" experience in the hospital to which Mr. Hargrave refers, but we do know that too many hospitals *are* noisy places. What with the chatter of visitors traipsing about the corridors, the dropping of pans by nurses and orderlies, slamming doors, and the call systems employed by some, many hospitals afford a din that is wholly unnecessary. We recall several days spent in a large metropolitan hospital in which there was a nurse on every floor whose sole duty was to see that there was no unnecessary noise—and there was none during our stay there.

Without entering into the discussion of a subject of which we know very little, we make bold to comment on an address delivered before the Indiana Society for Mental Hygiene at its recent Indianapolis meeting by Dr. Everett L. Kelly, associate professor of psychology at Purdue University. Quoting from press reports, it seems that Dr. Kelly did quite a bit of apple-cart upsetting when he averred that many of the mental ills of the people of today are to be blamed upon our school system. He makes the following observations in substantiating his allegations:

"1. Failure to acknowledge their responsibility for the mistakes leading persons to penal or mental institutions.

"2. Failure to provide for individual differences of pupils.

"3. Deciding policies by immediate dollar economies instead of considering the long-range returns of additional expenditures on education.

"4. Dictatorial school and class-room administration because it is easiest.

"5. Encouragement by teachers of pupils' habits which later lead to mental illness.

"6. Poor mental health among teachers themselves.

"7. Failure to prepare children to meet the

real problems of life—getting along with people, getting a job, and having a happy family life after finding a mate."

We repeat that we do not want to enter into a discussion of a controversial matter which this undoubtedly will become once our educational friends have digested these remarks, but it is presented here because of the interest many members of the medical profession probably will take in the matter.

The 1941 legislature enacted a law relating to hearing tests in the public schools of the state, known as Enrolled Act No. 512—House. This law provides that "it is the duty of school authorities to conduct and administer periodic audiometer tests or tests of a similar nature with approved scientific instruments or devices for determining the hearing efficiency of school children once each year within all the schools of the state." The law further empowers school authorities to appoint such assistants and examiners as may be necessary to carry on this work. Following these examinations, children with defective hearing are to be given such treatment as may be advisable, plus hearing devices when deemed necessary. Also, lip reading classes are to be formed. The Indiana State Teachers College of Terre Haute has announced a Speech and Reading Clinic course for special teachers in this work and further has announced that the Indiana State Teachers College is offering a testing service to the schools of the state, at cost, this service to be rendered by members of the personnel of the College. We always have been of the opinion that hearing tests should be conducted by members of the medical profession and that decisions as to what should be done with the hard of hearing should be made by this same group. Now, it seems, this field has been taken over by the educators! We do not oppose any effort to improve hearing conditions among our school children, but we do feel that the medical profession is more competent to care for these cases than any other group. Hence, we are pleased over the action of C. T. Malan, State Superintendent of Public Instruction, in asking the medical profession to supply him with suggestions in regard to the program which comes so definitely within the field of medicine.

The 1941 legislature enacted a law requiring a physical examination for tuberculosis of all school teachers, janitors and bus drivers, these examinations to be made every three years, the first of which must be made by March 13, 1942. Considerable question has been raised as to the law and recently a conference was held, the following organizations having representation thereat: Indiana Township Trustees Association, Indiana Town and City School Administrators' Association, Indiana State Teachers Association, Indiana State Tuberculosis Association, Indiana State Medical Association. As a result of this conference, the following rules were promulgated for the enforcement of the law:

1. A physical examination for tuberculosis is required for all school teachers, janitors and bus drivers every three years.
2. The first examination must be made by March 13, 1942 (1 year from the date of passage of this Act). Therefore, if funds are not available now, in the 1941 budget, for this examination, they should be provided for in the 1942 budget in order that the examination can be given between January 1, 1942, and March 13, 1942.
3. This examination shall include adequate laboratory tests, and x-ray. X-ray examination of the chest is the minimum requirement.
4. Such examinations, tests and x-rays, shall be made only by duly licensed doctors of medicine.
5. The cost of the examination, laboratory tests and x-rays, shall be borne by the Board of Education. This again indicates that the responsibility for making arrangements for examination of the employees (before March 13, 1942) and the payment for same is an obligation of the local employing official or officials.
6. Any employee may be examined at his own expense by any duly licensed doctor of medicine of his own choosing.
7. It shall be unlawful for school authorities to employ teachers, janitors, or bus drivers who are addicted to drugs, or who are intemperate, or who have tuberculosis or syphilis in an infectious stage. However, it shall further be unlawful for any school official to use this Act as a means of discharging a teacher or other employee for any reason other than failure to comply with provisions mentioned in the preceding sentence, and upon proof thereof, the same shall constitute malfeasance in office and shall be grounds for his removal therefrom.
8. If the result of such examination indicates the presence of tuberculosis in an infectious stage, the employee shall be ineligible for further service until satisfactory proof of recovery is furnished. Satisfactory proof shall consist of certification of same by a duly licensed doctor of medicine, supported by adequate laboratory data.
9. If such employee is under contract or tenure protection, he shall, upon satisfactory recovery, be permitted to complete the term of his contract. If under tenure, he shall be reinstated with the same status he possessed at the time his services were discontinued, provided the absence does not exceed a period of three years.
10. Sick leave compensation provisions provided for locally are not altered by this Act.
11. Township trustees, school boards, and boards of school commissioners who neglect or refuse to obey the provisions of this section, shall be fined in any sum of not less than $10.00 or more than $100.00, and each said refusal or neglect shall constitute a separate offense.

President's Page

Dear Doctor:

The scientific exhibit at the A.M.A. meeting in Cleveland was a knock-out. There were so many fine exhibits that it would be impossible to describe them.

The question about literature to give the doctor's side of socialized medicine to the League of Women Voters was presented to the A.M.A. They voted to write a special pamphlet for this course of study. I hope to have this information in the hands of the doctors' wives in the very near future. It is still up to you to aid this study all you can.

The National Nutritional Conference held in Washington in May was attended by about 700 delegates. They put out a chart showing the food requirements of men, women, and children. Since then there have been several state nutritional conferences held. I hope that Indiana will hold a conference on nutrition before long. At this meeting the statement was made that forty million people in the United States are improperly nourished. How many are under-nourished is hard to estimate, but what can we do about it if people won't eat? In other words, too many people want to keep their "girlish figures"! As long as that idea prevails, what can we do? My answer is that each doctor should pay more attention to the eating habits of his patients and show them the fallacy of this unguided dieting.

National Defense still is the biggest thing in this country, but there are still several social reforms for the health of the people being fostered under the guise of National Defense. Just remember that you must be on the watch.

I have attended all the district meetings held in May and June. The attendance was good despite the weather and the meetings have been first class in every respect. I sincerely hope that all the district societies will keep up the good work.

Remember that the Indiana State Medical Association annual meeting will be held September 23, 24 and 25, 1941, in Indianapolis, and that a good program is in store for you.

Sincerely yours,

THE AMERICAN MEDICAL ASSOCIATION IN CLEVELAND

F. S. CROCKETT, M.D.
LAFAYETTE

The ninety-second annual session of the American Medical Association was held in Cleveland, June 2, 3, 4, 5 and 6, 1941.

It was hot that Saturday afternoon when we turned the nose of our "Rolls Roger" eastward toward that temporary Mecca of all that is best in medicine and that gathering of the faithful in Cleveland. Sunday noon, June first, after getting the bags unpacked at the Statler, tickets for a double-header between the Cleveland Indians and the New York Yankees were supplied through the courtesy of the local profession. We members of the Hoosier delegation thoroughly appreciated this evidence of hospitality. The Bob Fellers were not so hot that day, and the Yanks hung up the coveted redskin scalps in both tussels.

Monday, the House of Delegates organized and settled down to the regular business of reference committees and reports and resolutions. There was a time when one could spring a resolution and get snap action, but on several occasions embarrassing conflicts with established policy resulted and this is responsible for the present method. The Reference Committee conducts regular hearings wherein interested parties may present opinions of the most divergent character, after which the committee forms its judgment for submission to the House. The Delegates may reject, modify, or accept the Reference Committee's report in whole or in part. Since the House of Delegates is the law-making and policy-making group for the Association, this method of procedure has produced economies of time and energy.

Monday evening a dinner was given in honor of the officers, trustees, and members of the House of Delegates, by the Ohio State Medical Association and the Academy of Medicine of Cleveland. Adding much to a colorful evening was the exhibition of musical talent by several local doctors and dentists.

The Indiana group was given recognition by two Reference Committee appointments: Hamer on the important Reports of Officers, and Crockett on Legislation and Public Policy.

INCREASING INTEREST IN GENERAL PRACTICE

The increasing interest manifested in the general practice of medicine was evident. In several state societies, it was learned, a section on general practice has proved very popular. The establishment of sections on the annual program follows only after a showing of sufficient evidence of sustained interest and attendance. Next year in response to the present considerable demand, a section on general practice will be presented. If the attendance at the sessions shows widespread interest, the experiment will be continued.

NUTRITION CONFERENCE ENDORSED

The general principle underlying the recent National Conference on Nutrition was endorsed with the suggestion that medical leadership in this movement should be encouraged.

MEDICAL PREPAREDNESS

The Committee on Medical Preparedness appointed last year has done a monumental work of great value to the country. To illustrate its efficiency, it has arranged on punch cards the information gathered from the questionnaire sent to all of the 182,000 physicians in the country. By passing these cards through a machine, doctors of any desired qualifications can be located for the benefit of the national defense.

In view of the experience gained in War Number I, the Committee is urging that interns be encouraged to complete their hospital training before going into the service. This would do much to prevent a shortage of trained medical men.

A recommendation from the Committee on Medical Preparedness suggested that a central authority be established to procure and assign physicians not only for the Army and Navy, and Public Health, but for selective service and industrial needs so that all will be medically protected.

THE SUIT AGAINST THE A.M.A.

The delegates voted unanimously to recommend to the trustees that the attorneys of the association be directed to appeal the judgment based on the verdict of guilty in the recent case of the United States against the American Medical Association for violation of the anti-trust law.

"EQUAL RIGHTS" FOR WOMEN PHYSICIANS IN MEDICAL RESERVE

Relative to a resolution proposing equal rights and privileges for women physicians in the reserve corps of the United States medical department, it was pointed out that such action would require a change in law and demand a reconsideration of the program of construction of military hospitals in addition to changes in the plans for housing officers.

It was suggested that the absence of male physicians from civilian areas would give opportunity to 8,000 women physicians for a full task and a valuable patriotic contribution, and it was recommended that they make application for positions in public health service.

NEXT CONVENTION TO BE PAN-AMERICAN AFFAIR

The House voted to make next year's convention at Atlantic City a Pan-American affair, with representatives to be invited from Central and South America, Cuba and Puerto Rico.

DR. LAHEY'S ADDRESS

Tuesday evening, president-elect Lahey was invested with the responsibilities and privileges of the presidency, to lead our profession through this ensuing critical year. In his remarks referring to the nursing situation, Dr. Lahey expressed the fear that the trend of nursing was away from service to the patient and too much in the direction of higher education.

"I have been fearful," he said, "lest the higher and higher standards of requirements for entrance and graduation in nursing might not make it more and more difficult to obtain a sufficient number of nurses to meet our increasing demands. It would be wrong for me, with my interest in nurses and their future, not to suggest to them that they take heed lest they educate and legislate themselves out of the important place they have held in medicine and in the community. It is really no exaggeration to say that, with many of the personal attentions to patients delegated to ward maids, the real art of nursing can be lost to the nursing profession."

Dr. Lahey recommended "dispersing internal conflicts until the question of what is going to happen to this country is settled."

Speaking of deferment of medical students from the draft, he said that there was a shortage of doctors; that, while the annual production in this country amounted to 5,000, because of old age, sickness or the like, 3,800 became unavailable for service, and that the yearly demand for doctors in various branches of service was 3,500. So he urged deferment of medical students.

SCIENTIFIC MEETINGS

Wednesday, the scientific sections began their astounding revelations in research, diagnosis and therapy. A vast scientific exhibit, covering the first floor of the Auditorium, graphically depicted the shadowy outline of the frontiers of medical research, as well as its substantial conquests.

On the basement floor, the vast industry that supplies us with our tools, our books, and our drugs, exhibited their latest gadgets for our edification.

Each day the local newspapers dramatized the scientific features of the session by such headlines as "New Operation Saves Limbs," or "Sees Aid for High Blood Pressure Cases." Another proclaimed "Two New Vitamin Diseases Found," all good examples of the ballyhoo artist selling his wares.

NATIONAL PHYSICIANS COMMITTEE

Thursday evening, at a dinner meeting, the National Physicians Committee rendered a report of its stewardship and appealed for continued support from the profession.

The National Physicians Committee is designed to promote that type of educational work with the laity that can not be undertaken by the American Medical Association under its charter as a scientific organization. The N.P.C. has done an outstanding bit of work during its first year just past and its performance promises an accumulative value for the future. Through the character and standing of its officers, it merits the financial support and confidence of all physicians.

CONVENTION NOTES

Registration—Indiana ranked sixth in registration at the A.M.A. meeting in Cleveland. The first six were: Ohio, 2,372; New York, 713; Pennsylvania, 646; Illinois, 568; Michigan, 442; Indiana, 217.

Dr. Cameron Speaks Up—A resolution presented by the Michigan State Medical Society, which would create a mental and nervous hospital in Washington, D.C., was defeated by the House of Delegates. The principal speaker against this resolution was Don Cameron of the Indiana delegation who pointed out in no uncertain terms that this was only another means of centralizing the control of medicine in the nation's capital.

Scientific Exhibit—The scientific exhibit has become perhaps the leading feature of the A.M.A. annual sessions. This year more than ever it lived up to its reputation. This is a source of pride to Indiana physicians because the scientific exhibit was originated and founded by Dr. Frank B. Wynn. A visit to the exhibit causes a profound reaction upon either physician or layman. One of Indiana's leading advertising men, after visiting the display, said, "This rekindles my faith in democracy. Until I visited this exhibit today, I had come to feel that the only people who could do such an outstanding detailed job of research and presentation were the Germans. Nothing that a totalitarian state has ever done can match this presentation of scientific medicine."

Indiana had three displays in the scientific exhibit. The Central State Hospital of Indianapolis was represented in the display section on Nervous and Mental Diseases with a demonstration by Dr. Walter L. Bruetsch of the most recent research work of the Indianapolis institution dealing with the relation of some cases of epilepsy to rheumatic fever. This work was awarded the 1941 prize of the American League Against Epilepsy.

Indiana University Medical Center had a display by Drs. W. D. Gatch and J. S. Battersby, presenting experimental studies to show that overdistention of the bowel as encountered in acute intestinal obstruction will produce a fatal result because of loss of blood plasma.

Drs. K. K. Chen and G. H. A. Clowes of the Lilly Research Laboratories had an exhibit showing racial variations in response to drugs and chemicals. According to their experiments, the same

drug will act differently upon Caucasians, Orientals, and Negroes.

Personalities—This year Indiana physicians held the most prominent place they have occupied since World War I on the scientific program of the American Medical Association. Filling such a headline spot in scientific affairs of the Association is somewhat new to the Indiana contingent which for a number of years, true to Hoosier tradition in almost any group, has assumed a place among the leaders in the economic and policy-forming bodies of American medicine. This year the names of fourteen Indiana physicians were listed on the official scientific program, and 217 Indiana physicians registered for the sessions.

Dr. Carl P. Huber, Dr. Robert J. Masters, Dr. C. H. McCaskey, and Dr. C. W. Rutherford, all of Indanapolis, and Dr. Eugene L. Bulson of Fort Wayne appeared on Wednesday's program. Dr. Huber spoke upon "The Problem of Syphilis and Pregnancy," while Drs. Bulson and Masters talked about "Lime Burns of the Eye." Dr. Rutherford spoke of the survey into the causes of blindness in Indiana, and Dr. McCaskey discussed "Problems of the Hard of Hearing in Industry."

As chairman of the Section on Radiology, Dr. R. C. Beeler of Indianapolis made the chairman's address, entitled "Problems Facing the Radiologist."

Dr. Lacey L. Shuler and Dr. Charles P. Thompson of Indianapolis took part (with physicians from other parts of the country) in a special exhibit on fractures.

In the scientific exhibits, Dr. W. L. Bruetsch, Dr. W. D. Gatch, Dr. J. S. Battersby, Dr. K. K. Chen, and Dr. G. H. A. Clowes, all of Indianapolis, had a part. (See report of scientific exhibits above.)

Indiana's four representatives—Dr. Don F. Cameron of Fort Wayne, Dr. F. S. Crockett of Lafayette, Dr. Homer G. Hamer of Indianapolis, and Dr. George Dillinger of French Lick—played leading parts in the deliberations of the House of Delegates which spent much of its time further perfecting ways and means that the medical profession can serve the United States in this time of national emergency. Dr. George Dillinger presented a resolution designed to give the man in general practice greater recognition through certification of physicians in general practice.

Dr. R. L. Sensenich of South Bend is serving his third year as a member of the Board of Trustees of the A.M.A. Dr. A. M. Mitchell of Terre Haute appeared before the Board of Trustees to discuss the public health study being made by the National League of Women Voters.

Certificates of Merit—The Committee on Awards for the scientific exhibits gave Certificates of Merit in Group II (judged on the basis of excellence of presentation and correlation of facts) to Dr. K. K. Chen and Dr. G. H. A. Clowes of the Lilly Research Laboratories, Indianapolis, for their exhibit on variations of drug action; also to Dr. W. D. Gatch and Dr. J. S. Battersby, Indianapolis, for their exhibit on the effect of bowel distention on plasma volume.

Golfer—Dr. Neal E. Baxter of Bloomington won the thirty-six hole handicap championship, winning a leg on the Detroit Trophy and receiving a set of Kroydon irons, at the A.M.A. Golfing Association tournament in Cleveland, June second.

Auxiliary Officers—New officers of the National Auxiliary are: president, Mrs. R. E. Mosiman, Seattle; president-elect, Mrs. Frank Haggard, San Antonio, Texas; recording secretary, Mrs. Samuel Flowers, Middleboro, Kentucky; treasurer, Mrs. David W. Thomas, Lock Haven, Pennsylvania.

Small theaters were provided for the showing of silent and sound motion pictures at the scientific exhibit, a feature which undoubtedly will grow in interest and in importance. Transfer of motion pictures from exhibit booths to theaters has many obvious advantages. It is now apparent that motion pictures, particularly those in natural color, provide a teaching medium of increasing importance.

A.M.A. OFFICERS FOR 1941-1942

The following officers were elected for 1941-1942:

President-elect—Fred W. Rankin, Lexington, Ky.

Vice-president—Charles A. Dukes, Oakland, Calif.

Secretary—Olin West, Chicago.

Treasurer—Herman L. Kretschmer, Chicago.

Speaker of the House of Delegates—H. H. Shoulders, Nashville, Tenn.

Vice-Speaker of the House of Delegates—Roy W. Fouts, Omaha.

Meeting places for the next three annual sessions of the A.M.A. are: for 1942, Atlantic City; for 1943, San Francisco; for 1944, St. Louis.

DR. RANKIN TO ATTEND INDIANA CONVENTION

Dr. Fred W. Rankin, president-elect of the American Medical Association, will be the banquet speaker at the annual meeting of the Indiana State Medical Association in Indianapolis, September twenty-fourth.

INDIANA PHYSICIANS REGISTERED AT A.M.A. MEETING IN CLEVELAND, JUNE 2-6, 1941

Amstutz, H. C., Goshen
Arbogast, J. L., Lafayette
Bach, Amil C., Indianapolis
Balla, Morris, South Bend
Banks, H. M., Indianapolis
Baxter, Neal E., Bloomington
Beeler, R. C., Indianapolis
Berghoff, R. J., Fort Wayne
Bickel, David A., South Bend
Birmingham, P. J., South Bend
Bishop, Chas. A., South Bend
Blackburn, Erwin, South Bend
Blackford, R. W., Beech Grove
Bland, Curtis, Terre Haute
Blum, L. L., Terre Haute
Bohner, C. B., Indianapolis
Bowers, J. W., Fort Wayne
Bowman, G. W., Indianapolis
Boyd, D. A., Jr., Indianapolis
Browning, J. S., Indianapolis
Bruegge, T. J., Kokomo
Bruetsch, W. L., Indianapolis
Bulson, Eugene L., Fort Wayne
Burk, James M., Decatur
Burkhardt, A. E., Tipton
Butterfield, R. M., Muncie
Cameron, Don F., Fort Wayne
Caplin, Sam'l S., Indianapolis
Carman, Lucille, North Manchester
Carter, O. E., Indianapolis
Cartwright, E. L., Fort Wayne
Cassady, J. V., South Bend
Cassidy, J. L., Evansville

Catlett, M. B., Fort Wayne
Caylor, Chas., Bluffton
Chavinson, Benj., Fort Wayne
Chen, K. K., Indianapolis
Clark, Stanley A., South Bend
Clark, W. H., South Bend
Clauser, E. H., Muncie
Cockrum, W. M., Evansville
Cole, R. E., Muncie
Collett, G. A., Crawfordsville
Combs, C. N., Terre Haute
Combs, P. B., Evansville
Cook, G. M., Hammond
Corcoran, A. C., Indianapolis
Covalt, Nila K., Muncie
Cox, L. T., Fountain City
Crimm, Paul D., Evansville
Cring, G. V., Portland
Crockett, F. S., Lafayette
Culbertson, C. G., Indianapolis
Cullen, Paul K., Indianapolis
Dalton, J. E., Indianapolis
Daves, W. L., Evansville
Davis, C. M., Valparaiso
DeDario, L. M., Elkhart
DeWitt, C. H., Valparaiso
Dillinger, G. R., French Lick
Dodds, W., Crawfordsville
Draper, M. H., Fort Wayne
Dugan, W. M., Indianapolis
Ebert, J. W., Indianapolis
Eby, Ida L., Goshen
Elliott, J. C., Guilford
Elliott, Ralph A., Gary
Estlick, R. E., Fort Wayne
Ferguson, A. N., Fort Wayne
Ferrin, K. F., Fort Wayne
Ferry, P. W., Kokomo
Fichman, A. M., Fort Wayne
Fish, C. M., South Bend
Forry, Frank, Indianapolis
Frey, W. D., Indianapolis
Gaddy, Euclid T., Indianapolis
Gambill, W. D., Indianapolis
Gante, H. W., Anderson
Garber, Paul A., South Whitley
Gates, G. E., South Bend
Giordano, A. S., South Bend
Gladstone, N. H., Fort Wayne
Glock, H. E., Fort Wayne
Green, George F., South Bend
Green, W. L., Pekin
Grayston, W. S., Huntington
Grillo, Donald, South Bend
Hadley, M. N., Indianapolis
Hall, O. A., Muncie
Hamer, H. G., Indianapolis
Hamilton, E. E., Dayton
Hannebaum, O. P., Indianapolis
Holman, J. E., Indianapolis
Howard, W. H., Hammond
Hoy, C. R., Syracuse
Hawk, J. H., Indianapolis
Hepner, H. S., Bloomington
Hines, D. C., Indianapolis
Hippensteel, R., Indianapolis
Haffner, H. G., Fort Wayne
Huber, Carl P., Indianapolis
Hubert, E. A., Richmond
Hughes, J. E., Indianapolis
Hyde, C. C., South Bend
Hyman, Bernard, Indianapolis
Jenkinson, W. E., Mt. Vernon
Jones, A. T., Pendleton
Jones, T. M., Anderson
Kahan, H. L., Gary
Kamman, H. H., Columbus
Kelly, W. C., Indianapolis
Kiser, E. F., Indianapolis
Klingler, M. E., Garrett
Kobrak, H. G., Gary
Kohlstaedt, K. G., Indianapolis
Kraft, Bennett, Indianapolis
Kruse, E. H., Fort Wayne
Larkin, B. J., Indianapolis
Lawrence, J. C., Evansville
Lee, Glen W., Indianapolis
Lehmberg, O. F., Columbia City
Lieberman, A., Gary
Lingeman, B. N., Crawfordsville
Long, P. L., Anderson
Lyon, Martha B., South Bend
Lyon, M. W., South Bend
MacGregor, D. E., Indianapolis
Martin, H. G., Lafayette
Mason, L. R., Muncie
Masters, R. J., Indianapolis
McAuliffe, D. L., North Vernon
McCaskey, C. H., Indianapolis
McDonald, V. G., Anderson
McElroy, J. S., Newcastle
Merchant, Ray, Lake Village
Meredith, E. J., Richmond
Mettel, H. B., Indianapolis
Miller, H. D., Jr., Shelbyville
Mitchell, A. M., Terre Haute
Mitchell, H. F., South Bend
Molt, W. F., Indianapolis
Montgomery, L. G., Muncie
Morrison, D. A., Kokomo
Mothersill, M. H., Indianapolis
Mott, C. A., South Bend
Mozingo, A. E., Indianapolis
Mueller, Lillian B., Indianapolis
Nafe, C. A., Indianapolis
Naugle, R. A., Wabash
Newman, A. E., Evansville
Norton, H. J., Columbus
O'Rourke, Carroll, Fort Wayne
Orr, W. R., Mishawaka
Owen, John E., Indianapolis
Owens, T. R., Muncie
Page, Irvine H., Indianapolis
Parker, C. B., Fort Wayne
Pearson, L. R., Indianapolis
Peck, F. B., Indianapolis
Petranoff, T. V., Indianapolis
Peyton, F. W., Lafayette
Polhemus, G. Irene, New Albany
Potter, F. C., Fort Harrison
Rafferty, M. A., Elkhart
Ratcliffe, A. W., Evansville
Rawles, L. T., Fort Wayne
Rhamy, B. W., Fort Wayne
Rice, T. B., Indianapolis
Ritter, W. L., Indianapolis
Ropp, H. E., New Harmony
Rosenheimer, G. M., So. Bend
Ross, L. F., Richmond
Row, P. Q., Hammond
Royster, H. R., Frankfort
Ruddell, Karl, Indianapolis
Rupel, Ernest, Indianapolis
Sanderson, R. B., South Bend
Savery, C. E., South Bend
Sennett, C. M., South Bend
Sensenich, R. L., South Bend
Shanklin, E. M., Hammond
Shanklin, H. L., Henryville
Shattuck, John C., Brazil
Sheehan, F. G., Indianapolis
Shuler, L. L., Indianapolis
Simpson, Morrell, Bedford
Snider, Byron, Indianapolis
Solomon, R. A., Indianapolis
Somers, L. E., Fort Wayne
Steinman, H. E., Monroeville
Stier, P. L., Fort Wayne
Stimson, H. R., Gary
Stoen, H. J., Lafayette
Swanson, John, Fort Wayne
Teters, M. S., Middleburg
Thompson, Chas., Indianapolis
Thornton, H. C., Indianapolis
Tindal, E. F., Muncie
Treon, J. F., Aurora
Turner, R. D., Muncie
Van Buskirk, E. M., Ft. Wayne
Voyles, C. F., Indianapolis
Warvel, J. H., Indianapolis
Wells, M. M., Fairland
Weyerbacher, A. F., Indianapolis
Whallon, A. J., Richmond
Wheeler, H. H., Indianapolis
Wilder, G. B., Anderson
Wilhelmus, W. M., Evansville
Wilson, L. A., Michigan City
Work, B. A., Frankfort
Wyatt, J. L., Fort Wayne
Yoder, A. C., Goshen
Zehr, Noah, Fort Wayne
Zweig, Elmer S., Ft. Wayne

ABSTRACTS

USEFULNESS OF SULFADIAZINE POINTED OUT IN TWO REPORTS

Two reports on conditions which may be treated with sulfadiazine, a new derivative of sulfanilamide, and indicating that not only is the drug an effective treatment agent for the infections named but also is much less toxic than sulfathiazole and sulfapyridine, two older derivatives, are published in *The Journal of the American Medical Association* for June 14.

In the treatment of pneumococcic, staphylococcic and streptococcic pneumonias, acute infections of the upper part of the respiratory tract, erysipelas, acute infections of the urinary tract, acute gonorrheal arthritis and meningitis, Maxwell Finland, M.D., Elias Strauss, M.D., and Osler L. Peterson, M.D., Boston, report that sulfadiazine is highly effective. Their findings are based on the treatment of 446 patients.

John H. Dingle, M.D., and Lewis Thomas, M.D., Boston, in another paper in *The Journal*, report that there were no deaths among 11 patients suffering from meningitis who were treated with sulfadiazine and say that the drug also is preferable to sulfapyridine in the treatment of this disease because it is less toxic in that nausea, vomiting, mental symptoms and other reactions often attributable to sulfanilamide drugs did not occur.

Drs. Finland, Strauss and Peterson found no well defined beneficial effects resulted from the use of sulfadiazine for chronic infections of the urinary tract, chronic gonococcic arthritis, subacute bacterial endocarditis or chronic infections of the lungs. In all patients in whom sulfadiazine was not effective and in whom other sulfonamides were tried, the latter were likewise ineffective.

"The results," the three authors say, "in the cases of pneumococcic pneumonia treated with sulfadiazine are comparable in every respect with the best results obtained in this clinic with the use of either sulfapyridine or sulfathiazole. In all other conditions the number of cases is too few to warrant definite conclusions or comparisons. In general sulfadiazine appeared to be as effective as sulfapyridine or sulfathiazole in every condition in which it was used.

"Toxic effects from sulfadiazine were relatively mild and infrequent. . . . A number of patients with definite evidence of renal or hepatic damage were treated with sulfadiazine without further impairment and, in some instances, with actual improvement of function in the course of therapy. Some patients with initial leukopenia showed a rise in the white blood count during sulfadiazine therapy.

"Sixty-six patients received both sulfathiazole and sulfadiazine, and toxic effects from sulfathiazole were three times as frequent as they were during sulfadiazine therapy."

REPORT OF NATIONAL NUTRITION CONFERENCE FOR DEFENSE

HERMAN M. BAKER, M.D.
EVANSVILLE

This conference was called by President Roosevelt and met in Washington May 26, 27, 28, 1941. It was under the chairmanship of Mr. Paul McNutt, Federal Security Administrator and Coordinator of Health, Welfare and Related Activities. About 750 people registered for the Conference. These included representatives of industry, farms, merchandising, transportation, labor, consumers and the professions concerned with nutrition such as public health, nutritionists, teachers, physicians, dentists, biochemists, etc.

The morning sessions were given to reports of the officers of the Conference and governmental agencies. Mr. McNutt, Chairman, Dr. Russell Wilder of the National Research Council, M. L. Wilson, Department of Agriculture, Claude R. Wickard, Secretary of the Department of Agriculture, Adolph A. Berle, Jr., Assistant Secretary of State, Frances Perkins, Secretary of Labor, Harriet Elliott, Consumer Advisor of National Defense Council, Lewis B. Hershey, Director of the National Selective Service System, Dr. Thomas Parran, Surgeon-General of the U.S.P.H.S.

The afternoon and evening sessions were devoted to sectional meetings. The conference was divided into ten sections with numerous subsections for study and analysis.

In opening the conference Mr. McNutt said, in part, "New and startling facts about nutrition have become known, facts which are vital to the strength, health and security of America."

"America faces today one of the greatest crises in her history—a crisis of such broad significance that we cannot afford to compromise our national strength in any way. If we lose, our way of life will fall, perhaps forever."

"We don't need learned or appreciative essays, we don't need wind, words or window dressing. We need a plan of action. It is essential that this conference lead to action."

The chairman then addressed seven questions to the conference. They were in brief:

1. How much responsibility shall Government assume and what shall our national economic policy be with respect to nutrition?
2. What is the most effective way to solve the twin problems of undernutrition and of farm surpluses?
3. How can we send to Britain the food she needs and at the same time give all American families a fairly good diet?
4. Can nutritionally adequate diets for all be achieved as a result of the employment and wage increases to be expected this year and next?
5. How can we attempt to promote inexpensive methods of distribution of all basic foods?
6. What remedies can be proposed for preventing our present widespread nutritional disabilities?
7. How can public schools, colleges, and medical schools, and adult education facilities be best mobilized to tell the story of nutrition?

The various sections of the conference reported the results of their deliberations on the last day of the meeting. In the interest of brevity I am only reporting to you those recommendations of the conference that seem of direct concern to physicians and allied workers.

Section I. Research and National Nutrition Problems

(a) Improvement of presently known chemical and biological procedures for estimating the amounts of the essential nutrients in foods and their physiological availability.

(b) More refined techniques for the detection of nutritional deficiency states, especially in the subclinical degrees of intensity.

(c) More precise determination of the optimum and minimum requirements of human subjects for each of the nutrients, as influenced by age and physiological status (including pregnancy and lactation) and those factors which affect their utilization.

(d) Study of problems relating to the nutritional needs of the individual as influenced by constitutional inefficiencies, by suboptimal nutrition, by disease and convalescence.

(e) Studies directed toward clear definition of the physical status of the individual.

(f) Study of all factors affecting the nutritive value of foods and their preservation during the interval between production and consumption.

(g) Study of methods of preparation of foods for consumption so as to avoid losses of nutrients.

(h) Food habits and methods and effects of changing them.

Section III. Public Health and Medical Aspects of Nutrition

I. That departments of public health recognize that they have a large responsibility in the nutrition programs in their respective communities.

II. That closer cooperation between medical and public health groups and other agencies interested in nutrition be established, and in order that effective local action may be taken, it is urged that the need for this cooperation be called to the attention of organized medical and public health groups everywhere.

III. That efforts be made to stimulate greater interest in nutritional problems among general practitioners and with this in view that opportunity for postgraduate training in nutrition be made more widely available.

IV. That the establishment of therapeutic diet

clinics in connection with hospitals and medical centers be actively promoted.

V. That additional training in nutrition be given in schools of medicine and public health, with special attention to teaching the economic aspects of adequate nutrition. The Section concurs in the more detailed recommendations on this subject made by Section VI of the Conference.

VI. That medical societies, dental societies, and health authorities be represented on all State and community nutrition committees, and that medical groups take an increasingly active part in organizing, sponsoring, and cooperating in nutrition programs.

VII. That medical societies be asked to form nutrition committees for the purpose of disseminating nutrition information through symposia, speakers' bureaus, exhibits, motion pictures and similar methods.

VIII. The recognition that robust health should be preserved by the use of adequate diets where available and that vitamin pills and concentrates of adequate potency be used only to supplement diets which are necessarily inadequate and by physicians for the treatment of deficiency diseases.

IX. That as soon as acceptable diagnostic methods of proven value are developed in the field of nutrition, such service be made available by departments of health to the practicing physicians.

X. That both city and State health departments take a greater interest in nutrition with a view primarily of aiding practicing physicians in the diagnosis and treatment of nutritional disorders.

XI. The wider distribution and utilization of inexpensive foods of high nutritive value and the home production and use of larger amounts of protective foods, in order to assist in preventing deficiency diseases.

Section IIIb.

This section studied the question of nutrition of pregnant and lactating women and of children. The report was rather lengthy and the details can be found in the proceedings of the conference.

Section VI. Professional Education in Nutrition

1. Considering the importance of nutrition in health and welfare, it is important that all workers who have contact with large groups of the population should have fundamental training in nutrition. This includes teachers and administrators in the schools, nurses, social workers, and the public health dentist and physician. Strong courses in nutrition should be incorporated in the curriculums of institutions training such workers.

2. Professional workers engaged in certain specialties have a greater-than-average opportunity for fostering good nutrition. Among these are nutritionists and dietitians, physicians of internal medicine, pediatrics, obstetrics; public health physicians, nurses and dentists; teachers of health education, social and biological sciences, home economics, and agriculture; child welfare and medical social workers. Such workers should have strong additional work in nutrition as a part of their specialized training.

3. Leaders interested in nutritional betterment should plan with the heads of their various professional schools for: (1) Short refresher courses for workers already in the field, especially those whose basic training antedates the newer knowledge of nutrition; (2) training courses for specially selected individuals to give emergency service as lay leaders under supervision; and (3) strengthening the curriculum in the basic training and the subsequent specialization of present and future students.

4. Professional workers and those engaged in the specialities related to nutrition should have access to in-service education and consultation from specialists in nutrition. There is need for an additional number of nutritionists, thoroughly trained in the scientific background of nutrition and in its practical applications.

Section VIb.

(1) Better training in nutrition for medical, dental, and public health students.

(2) Extensive postgraduate courses in nutrition for physicians, dentists and public health officers.

(3) Development of a certain number of physicians and dentists with a broad and extensive knowledge of the general field of nutrition and with sufficient experience in the recognition of nutritional diseases to provide expert medical and dental advice to public-school teachers, social workers, public health nurses, nutritionists, practitioners of medicine and dentistry, and many others concerned with the nutritional needs of the people.

The complete recommendations of the rest of the ten sections and subsections can be had in the published proceedings of the conference.

In summarizing the work of the conference, Dr. Thomas Parran said in part—

"We have been asked by our Commander-in-Chief to tell him what we can do to make America strong by making Americans stronger for whatever perilous task may lie ahead. An answer has been given in our approval of the reports of the ten sections, given here today. In summary, our answer is that, given the national will to do it, we have the power to build here in America a nation of people more fit, more vigorous, more competent; a nation with better morale, a more united purpose, more toughness of body, and greater strength of mind than the world has ever seen.

"The science of nutrition is about as young as the science of aviation. We do not know all the answers in either field. But as much, relatively, is known about what nourishes a human body, as is known about what gets a heavy machine up in the air and to its destination safely. The difference is that far less of the nutritional knowledge is put to work.

"For the first time, the top experts in the nation have drawn the specifications for a diet adequate for good health—a 'gold standard for nutrition.' Here we have the blueprints. They represent no narrow list of foods, but a wide choice that can be purchased cheaply anywhere in the country, yet which will provide for men, women and children the nutrition essentials for life and buoyant health. These blueprints will have meaning only if each one of the 130 million of us can and will translate the specifications into a wiser selection of what goes into our stomachs every day.

"The Conference has been told that one-half of our fuel, the calories we eat, is in the form of bread and sugar. Add to this the refined fats, and two-thirds of our energy intake is in the form of 'inert calories,' which furnish fuel and nothing else. From the remaining third of our diet we must get the vitamin B complex and the minerals needed to burn up the inert calories. This has been hard to do during the past years. Bread, during long centuries has been the 'staff of life.' Until recently we have made it a very frail and feeble reed by 'scalping' out of the wheat berry most of the vitamins and minerals which the good Lord put into it for our protection. Year by year, too, our consumption of sugar has increased. White sugar is a source of fuel—nothing else. It does not carry the vital elements necessary for its use in the body.

"There has been complete agreement with the objective of the Conference stated in different language by the President, the Vice-President, and the Chairman: *To Build a Stronger Race Through Good Food.*

"The doctors here will see to it that the whole medical profession keeps abreast of the newer knowledge of nutrition, and it takes its part in community leadership to put this knowledge to work.

"Today we are preparing to defend, not so much the square miles of land that represent the 48 States, our territories and possessions, nor an island here, or the bulge of a continent there—but the men, women and children who are the United States. We must be willing, yes, eager, to sacrifice comforts, convenience, money, even life itself, in order to insure our freedom and the freedom of our children to choose *our own* and *their own* way of life.

"All of us today are conscious of the grave task lying before us. The President has declared a state of unlimited National Emergency. We shall need in the days to come rugged health and courage such as the world has never seen. The magnitude of our effort for this war is only the beginning of our historic task.

"After this war, when cities and civilizations lie in ruins and the democratic impulse in men's hearts toward human brotherhood is smothered with hate, all the strength and courage that America can muster will be needed for the rebuilding of a shattered world. We Americans must be conscious of our destiny for America is the last great hope on earth."

The conference was closed with a short talk by Mrs. Roosevelt.

BOOKS

RECEIVED

ESSENTIALS OF ENDOCRINOLOGY. By Arthur Grollman, Ph.D., M.D., Associate Professor of Pharmacology and Experimental Therapeutics in the Medical School of the Johns Hopkins University; formerly Associate Professor of Physiology and Instructor in Chemistry in the same institution. 480 pages with 74 illustrations. Cloth binding. Price $6.00. J. B. Lippincott Company, Philadelphia, 1941.

* * * *

ORAL PATHOLOGY. A Histological, Roentgenological, and Clinical Study of the Diseases of the Teeth, Jaws, and Mouth. By Kurt H. Thoma, D.M.D., Professor of Oral Surgery; and Charles A. Brackett, Professor of Oral Pathology, Harvard University. 1306 pages with 1370 illustrations, including 137 in color. Cloth. The C. V. Mosby Company, St. Louis, Mo., 1941.

* * * *

SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES. By George R. Herrmann, M.S., M.D., Ph.D., F.A.C.P., Professor of Medicine, University of Texas, Director of the Cardiovascular Service, John Sealy Hospital, Consultant in Vascular Diseases, U. S. Marine Hospital. Second edition, completely revised and reset, 91 illustrations with some in colors. 468 pages. Cloth binding. Price $5.00. The C. V. Mosby Company, St. Louis, 1941.

REVIEWED

SYNOPSIS OF THE PRINCIPLES OF SURGERY. By Jacob K. Berman, A.B., M.D., F.A.C.S., Assistant Professor of Surgery, Indiana University School of Medicine, Indianapolis. Fabrikoid. Price $5. Pp. 615, with 274 illustrations. St. Louis: C. V. Mosby Company, 1940.

Dr. Berman's Synopsis of Surgery has already received much enthusiastic comment. This book is an unusual surgical text in which the author has correlated the fundamental principles of surgery with the basic sciences. The body of the text is a brief discussion of clinical surgery. Running concurrently therewith, the related facts of anatomy, pathology, biochemistry, and physiology are covered in footnotes. In this fashion the author presents a wealth of information in a unique style which is recommended for physicians as well as students. The sections on acid base equilibrium, fluid balance, hemorrhage, and shock are especially good. The book is well illustrated with photographs, photomicrographs, and drawings. Numerous reviews have given this unusual text the enthusiastic acclaim it so richly deserves. We are happy to be able to recommend it without reservation.

H. M. T.

NEW COURT DECISION ON EMERGENCY MEDICAL CARE BY TOWNSHIPS

LEO X. SMITH, LEGAL ADVISER
INDIANA TOWNSHIP TRUSTEES ASSOCIATION

Of great importance to physicians, hospitals and township trustees is a recent decision of the Indiana Appellate Court[1] on medical and hospital care of indigents at township expense. Many points causing controversy in the past have been clarified and the rights and remedies of involved parties settled on those questions. The frequency of autobile accidents requiring immediate attention to the injured also makes this decision important.

The facts are: The indigent, a young girl whose parents were receiving relief where they had settlement in P. township of St. Joseph County, was injured in an auto accident which happened in S. township of LaPorte County. The girl was taken at once to a hospital elsewhere in M. township of LaPorte County where she was unconscious for three days. There was an attempt to notify the trustee of the township where the accident occurred, but on the second day he was notified by letter of the plight of the accident victim.

There was no written authorization given by any township trustee for care of the girl, as is usually given in non-emergency cases.

The township where the girl resided and had legal settlement, P. township of St. Joseph County, was later notified of the situation and when she was able to be moved, that township accepted her and from then on gave her any needed attention.

The hospital sued the township where the accident occurred, also another township where the hospital was located and to which she was taken. The township where she resided and had settlement was also made a party to the suit.

The Appellate Court held that the township where the accident occurred was liable for all care and attention until she was removed to the township of her legal settlement.

In the court's decision, it clarified several controversial points which have heretofore been questioned. It held in considering the relief statutes[2] that "it is clear that regardless of the established residence of such poor person contemplated therein, such relief shall be administered by the overseer of the poor, in any township wherein" the indigent may be found in distress. This point therefore settles the often asked question as to which township is liable for relief, medical aid or hospitalization. This means that responsibility is in the township where the indigent is found in distress irrespective of how long he or she has been there and irrespective of whether or not statutory settlement has been acquired.

The decision also recognizes that ordinarily the trustee who is overseer of the poor must order care before liability accrues "yet the act does not contemplate that unfortunates shall be left to suffer or die, until such overseer can be found." There was no dispute about the emergency nature of the services required for this girl who was unconscious, had a broken collar bone, broken arm, broken wrist, lower jaw fractured on both sides and leg burns from being dragged.

The Appellate Court also held that removal of the girl to a hospital in another township for care did not create liability against the township where that hospital was situated. The township where the accident occurred continued liable until the girl was brought back to that township for further attention "or to return her to the township of her legal settlement as provided by section 13,[3] and until such action was had" the township where the accident happened continued liable.

This decision also reviews the very few prior Indiana decisions on the subject. The points ruled on have been decided with such clearness that there should be no further argument concerning them in cases requiring emergency care by hospitals or physicians in Indiana. Neither should there be any further jurisdictional disputes among township trustees as to which township is liable.

[1] Portage Township of St. Joseph County vs. Clinic, Inc. (Appellate), 33 N. E. (2nd) 786.

[2] Acts of 1935, page 432, sections 5, 7, 13; Burns supplement 1939, sections 52-148, 52-150, 52-156, respectively.

[3] Acts of 1935, page 437, section 13; Burns 1939, section 52-156.

ABSTRACT

SULFAGUANIDINE FOR TYPHOID CARRIERS

Still another use for one of the sulfanilamide derivatives is suggested by J. Elliot Levi, M.D., and Abner Willen, M.D., Baltimore, in *The Journal of the American Medical Association* for May 17, who report that the treatment of a typhoid carrier with sulfaguanidine resulted in six consecutive negative cultures for the typhoid organism.

All cultures following previous recommended treatment, use of the drug, iodophthalein, and removal of the gallbladder were positive for the organism. "The time elapsing since discontinuance of the drug," the Baltimore physicians point out, "has been brief, but on no occasion have the stools shown the presence of Eberthella typhi. It is felt that this method of therapy is worthy of further trial."

RECOMMENDATIONS FOR PUBLIC SCHOOL PROGRAMS OF HEALTH AND PHYSICAL EDUCATION FOR NATIONAL DEFENSE*

FRANK S. STAFFORD

Assistant Chief, Bureau of Health and Physical Education, Indiana State Board of Health

GENERAL CONSIDERATION FOR LOCAL PROGRAMS

It is recommended:

1. That, in the main, no radical or sharp departures in the content of local programs be advised, but instead that a reaffirmation be made of our belief in a sound modern program of games, sports, athletics, hygiene, intramural and varsity athletics, and health services as the best instruments for preparedness.

2. That our high school programs of health examinations, remedial procedures, health instruction and health guidance including mental hygiene be wisely and powerfully increased to the end that maximum service in preparing a healthy school population be achieved.

3. That we should encourage the teachers to intensify and improve the activity programs which they are now conducting.

4. That we reaffirm and make clear to all concerned that we believe the best contribution which physical education can make to the preparation of public school students, either for military service or for life in a democracy, is in a program which extends active instructional, recreational and competitive opportunities *to every boy and girl in the public schools* chosen appropriately in accordance with individual needs.

5. That we endorse such a pattern of health and physical education for the public schools so as to require all students to receive instruction in physical education and health education adapted to their individual needs.

6. That in such programs as our schools offer, the instruction be not limited to activity skills alone, but that demonstrable ends in strength, endurance, social acceptability and an understanding appreciation of the democratic process be urgently and tangibly sought.

7. That we endorse strengthened relationships between departments of physical education and school health services to the end that the objectives of both can be better realized.

8. That teachers and administrators individually give their support and endorsement to local or state legislation enabling public funds to be expended for facilities and programs of physical education, health education, or recreation.

THE ACTIVITY PROGRAM

It is recommended:

1. That the content of our programs in physical education contain an abundance of opportunity for youth to achieve a sound physical condition through vigorous active sports and games. The objectives of strength and endurance should be held clearly in view and individual programs should be arranged to attain these goals wherever compatible with the age and physical condition of the student.

2. That, while no specific and compulsory program of calisthenics or "conditioning" exercises seems desirable for all students, yet all should be given on a voluntary basis an opportunity to participate in such activities as walking, running, and combat sports, as will better prepare them for the current and singular requirements of military life.

3. That, wherever feasible, schools open their gymnasia, and organize instructional and recreative groups for non-school men of selective service age living in the community. Special opportunities should be given to post-school inductees prior to their service.

4. That physical education periods be so organized so as to allow the maximum for vigorous participation. It should be recognized that for the normal student one hour of vigorous activity per day would be the minimum amount of time necessary to produce the desired results.

5. That school faculties and other employees be urged to avail themselves of the physical education facilities with periods or classes established for them and the administration of the program so arranged as to provide for maximum convenience in attendance.

6. That school administrators adjust the schedule of classes and laboratory periods so as to allow for the maximum use of the afternoon periods for physical education and other recreational activities.

MILITARY TRAINING AND DRILL

It is recommended:

1. That every effort be made to cooperate with the R.O.T.C. units, where they exist, and with any other form of military organization (e.g., Home Guards, Reserve Militia) to the end that the distinct purposes of both physical education and the military will be served.

2. That military drill not be considered as a satisfactory or desirable substitute for physical education in any school.

---

* Presented at the annual meeting of the Association for Health, Physical Education, and Recreation, March 29, 1941.

3. That military drill and marching tactics not be added to established physical education programs and that such activities, useful for military purposes, be regarded as distinctly within the province of military units.

HEALTH INSTRUCTION

It is recommended:

1. That in institutions where the typical one-hour a week, or one semester, health course is offered to students, an effort should be made to increase the time allotted and thus broaden and intensify the instruction given.

2. That every student should be provided, either on an elective or compulsory basis, with an opportunity to develop a better knowledge and control over his individual practices of hygiene than ever before.

3. That for high school pupils close to the point of military service, instruction be offered in such aspects of military hygiene as disease control, recreation and psychological adjustments.

4. That every student be given adequate and appropriate instruction in the prevention, care and treatment of all communicable diseases with special attention to the venereal diseases.

5. That every opportunity be taken in activity physical education classes to instruct the participants in the hygiene of the activity and in the methods and principles of effective health behavior.

6. That, wherever feasible, the official Red Cross courses in first aid and lifesaving be introduced into the health and physical education programs, and that persons planning to enter military service or the defense industries be encouraged to acquire this information.

HEALTH SERVICE

It is recommended:

1. That every student be required to take a thorough physical examination upon entrance into school and also periodically thereafter to the end that remediable defects and handicaps can be found and removed.

2. That educational programs for immunization for smallpox, diphtheria, and typhoid fever be established and that the need for appropriate testing for tuberculosis and venereal diseases be taught.

3. That the school assume some responsibility for acquainting the student with all appropriate medical or surgical service available to all students in need thereof.

4. That all physical education activities be selected in accordance with the findings of the entering physical or medical examination and that no activities be prescribed or elected except as the physical status of the student warrants.

5. That an adequate seasonal examination of all varsity and intramural athletes be a routine in departmental administration.

AIMS AND PURPOSES STATED IN THE 1919 PHYSICAL EDUCATION LAW

The aims and purposes of the course of physical education established under the provisions of this act shall be as follows:

(1) To develop physical and organic vigor; provide neuromuscular training; promote bodily and mental poise; correct and prevent postural and bodily defect, and to develop a correct carriage and mental and physical alertness.

(2) To secure the more advanced forms of coordination, strength and endurance, and to promote the more desirable moral and social qualities, such as an appreciation of the value of co-operation under leadership, self-subordination, obedience to authority, higher ideals, courage, self-reliance, disciplined initiative, self-control and a wholesome and robust interest in recreational activities.

(3) To promote a hygienic school and home life and to secure scientific supervision of the sanitation of school buildings, playgrounds and athletic fields and the necessary equipment thereof.

(4) Such course may likewise include suitable instruction in personal and community health and safety; the privileges and responsibilities of citizenship as they are related to community and national welfare; the production of the highest type of patriotic citizenship, and domestic hygiene and first aid.

ABSTRACT

APPOINT NEW SECRETARY OF COUNCIL ON PHARMACY AND CHEMISTRY

Theodore G. Klumpp, M.D., chief of the Drug Division of the Food and Drugs Administration of the United States government, has been appointed Secretary of the Council on Pharmacy and Chemistry of the American Medical Association to take office on July 1, the Board of Trustees of the Association announces in *The Journal* of the Association for May 24.

Dr. Klumpp will succeed Paul Nicholas Leech, Ph.D., who died suddenly on January 14. In addition to serving as Secretary of the Council on Pharmacy and Chemistry, Dr. Klumpp also will serve as Director of the Chemical Laboratory and Director of the Division of Foods, Drugs and Physical Therapy of the Association.

PNEUMONIA IS CONTAGIOUS

Additional evidence that pneumonia is a contagious disease and that all patients with it should be strictly isolated, even during convalescence, is presented in *The Journal of the American Medical Association* for June 7 by Sydney S. Gellis, M.D., and A. Graeme Mitchell, M.D., Cincinnati.

"Nine instances of cross infection with type I pneumococcus occurred in November and December of 1939 during a period of two weeks in the pediatric service of the Cincinnati General Hospital," the two physicians say. "All the children, with one exception, were between the ages of 2 and 3 years."

TWENTY-FIVE YEARS AGO

From THE JOURNAL'S pages, July 1916 issue

W. F. Clevenger, Indianapolis, discussed an operation on the nasal septum; E. J. Lent, South Bend, talked about suppurative mastoiditis; W. H. Williams, Lebanon, cited some cases of gall bladder trouble; W. N. Culmer, Bloomington, chose as his subject a consideration of some of the troubles affecting the upper respiratory passages; T. C. Kennedy, Indianapolis, wrote about the treatment of epithelioma with radium.

The editorial section discussed high blood pressure and the National Board of Medical Examiners.

Bulson seemed much concerned over the activities of the "Dry" Hoosier group who were insisting that no paper or other publication be permitted to circulate in Indiana if it contained any advertisements for beer and liquor; Bulson wanted to know if the "Drys" would include advertisements for Wine of Cardui, Hostetter's Bitters and Lydia Pinkham's Compound.

The proposed Military Training Camps program, arranged for Fort Benjamin Harrison, Indianapolis, had been postponed because of the activities along the Mexican border.

Word from Dr. J. Rilus Eastman was to the effect that he was to have charge of the Austrian units, sent out by the American Physicians' Expeditionary Society, with headquarters in Vienna.

The Wine of Cardui suit versus the American Medical Association resulted in the awarding of damages to the Cardui folk in the sum of *one cent*. This verdict made it compulsory for the Cardui outfit to pay all the costs of the case, said to have been close to a half million dollars.

Gold hypodermic needles were being "boosted" by the Modern Hospital, which says in the long run that they are cheaper and far superior to the platinum variety.

The Mexican uprising had served to bring to light the fact that this country was wholly unprepared for trouble with other nations, a condition Editor Bulson charged to be criminal negligence.

The touring car of Dr. F. C. Heath, Indianapolis, had stalled on a railroad crossing; the good doctor leaped from the car in time to save himself, but the car was totally wrecked.

Dr. Herman G. Morgan had been re-elected as secretary of the Indianapolis Board of Health.

Several Indianapolis physicians, members of the National Guard, had been called to service. In the list we note Drs. L. D. Carter, Foxworthy, Nimal, E. D. Clark, Keene, and Pfaff.

The following Indiana physicians had recently been married: A. M. Sullivan, of Attica; William A. Johnson, of Perrysville; Frank B. Thompson, Lafayette; Clay A. Ball, Muncie; Harry W. Helmen, South Bend.

The editor (Bulson) and his daughter, Geraldine, were on a fishing trip in Canada. (Probably at Calvert's Camp, Lake of the Woods, to which place Bulson usually went when he wanted real fishing.)

Dr. Joseph Maurer, Marion, had returned from a post graduate study in New York.

The city of Marion had just completed a campaign to raise funds for a new hospital. More than $17,000 had been raised in a six-day campaign.

Dr. Paul E. Bowers, prison physician for the Indiana State Prison, had left for Army duty at Fort Sam Houston, Texas.

Dr. G. R. Douglas and wife, Valparaiso, had taken an extensive eastern trip, stopping off at Detroit to attend the annual session of the A. M. A.

The Nebraska State Medical Association had decided to have a state journal, to be known as The Nebraska State Medical Journal. Dr. Irving S. Cutter (recently retired after a long service as Dean of Northwestern Medical School) was to be the first editor. The new journal, it was announced, would conform to the standards of the Council on Pharmacy and Chemistry, making the twenty-eighth state organ to adopt such a rule. (The only exception at that time was the Illinois Medical Journal which continued to accept non-approved advertising.)

The Victor Electric Corporation, a composite of many electrical manufacturing companies over the country, had been formed, with headquarters at Fort Wayne.

Annual Convention

Indiana State Medical Association

Indianapolis, September 23, 24, 25, 1941

UNDER THE CAPITOL DOME

BIRTH CERTIFICATES

Dr. John W. Ferree, secretary of the Indiana State Board of Health, points out that the importance to the average citizen of possessing a valid and accurate birth record is constantly becoming greater. In the future these records may become even more vital to the citizens.

The medical profession should be impressed with the necessity of helping in this matter, Dr. Ferree said. In asking full cooperation from the doctors, Dr. Ferree added that the Board of Health is offering its complete cooperation with the doctors.

The state board has kept birth records for the entire state since 1907. These records have gone the route from the hands of the doctors or midwives to the county health officers, and thence to the state board. Numerous instances, however, have been found where reports were not made, or where the reports were incomplete.

Francis Hamilton, attorney for the Board of Health, pointed out that the board has prepared forms which will aid the doctors in making their returns, and invited the profession to write for any desired information. Methods of handling reports in cases of illegitimacy, where there is a delay in naming the child, or any other unusual situation will be explained for the benefit of the attending physician, and forms have been prepared, Mr. Hamilton said.

Under provisions of the 1941 law the previous practice of issuing a birth certificate upon affidavit of the applicant has been abandoned. The new law gives Circuit and Superior courts, without intervention of a jury, authority to fix the time and place of birth of any person upon petition after 30-day notice has been given by legal publication. This same law also requires the county clerks to keep birth certificate records.

Under the new law the certificates will cost at least $3, the legal advertising bill.

Mr. Hamilton pointed out that one of the best records that an applicant can produce to establish his date and place of birth will be records of physicians.

Records of that type, however, will be impossible to produce in many instances. Consequently, the health board attorney said, it is expected that the courts will accept valid records dating back at least four or five years—farther back preferable. These records would be marriage license applications, hospital records, lodge records, and any other in which the age and place of birth were given.

In addition to the documentary evidence, persons applying for a court order fixing the date and place of their birth will be required to produce two witnesses to establish the fact that they have been residents of the state for one year.

Mr. Hamilton said the new law does not contemplate any charge against the applicant for a court order except the legal publication cost.

Authorities were unable to estimate what the volume of this new court business would be, but indicated that there would be many applications in every county of the state. Most of the ninety-two counties did not begin keeping records until 1910, although some kept them as far back as 1882. The state record system dates back only to 1907.

Even the counties that have the oldest records do not have them far enough back for persons who are old enough to apply for old age pensions, it was pointed out.

The semi-annual meeting of the Indiana State Board of Medical Examination and Registration will be held in Indianapolis on July 8.

Induction of medical school graduates into the United States Army reduced the number of out-of-the-state men who took the annual examination conducted by the Indiana State Board of Medical Examination and Registration, Miss Ruth V. Kirk, executive secretary, reported. A group of 140 applicants had been expected, including those from schools outside of Indiana. Before the examinations started on June 17, the number had been reduced to 125. The Indiana University school of medicine graduates, of course, take the examination whether they are going into private practice or into the army medical service. The examinations were conducted by the board on June 17, 18, and 19, in the Claypool hotel.

Annual Convention

Indiana State Medical Association

FRATERNITY AND CLASS GET-TOGETHERS

In addition to some eight or ten small dining rooms in the Claypool Hotel, it is planned to obtain facilities of the clubs in the downtown district in Indianapolis for the special group dinners in connection with the State Convention... It is urged that the groups wishing these special accommodations make their plans at an early date in order that they may select an adequate meeting place for their organization. The committee in charge of arrangements for these luncheons is prepared to receive such reservations now. A detailed list of available meeting places, with information concerning the capacity of each, will be published at a later date.

COMMITTEE ON FRATERNITY AND CLASS GET-TOGETHERS
Eugene Boggs, M.D., Chairman

Indianapolis, September 23, 24, 25, 1941

Deaths

PAST PRESIDENT McCULLY DIES

Charles Harvey McCully, M.D., of Logansport, died suddenly at his home, May twenty-first, after spending the afternoon examining draftees. He was seventy-three years old.

Dr. McCully had practiced in Logansport for forty years. He graduated from the Eclectic Medical College, Cincinnati, in 1893, and from the Medical College of Indiana, Indianapolis, in 1897. During the World War he served as captain in the medical corps at Fort Oglethorpe, Georgia, at Camp Lee, Virginia, and at the Rockefeller Institute in New York.

Dr. McCully served as president of the Indiana State Medical Association in 1920. He was a member of the Cass County Medical Society, the Indiana State Medical Association, the Eleventh Councilor District Medical Association of which he had been president, and he was a Fellow of the American Medical Association.

Morse Harrod, M.D., of Fort Wayne, died May fifteenth at his home. He was seventy-five years of age. Dr. Harrod graduated from the Eclectic Medical College of Cincinnati in 1891. He was a member of the Fort Wayne (Allen County) Medical Society, the Indiana State Medical Association, and the American Medical Association.

John H. Jones, M.D., of Seymour, died May fourteenth, aged eighty-one years. Dr. Jones was a graduate of the Eclectic Medical College, Cincinnati, in 1891.

Walter Clarence Sherwood, M.D., of Mitchell, died May twenty-ninth, aged sixty-four years. Dr. Sherwood had practiced at Mitchell for forty years. He was a graduate of the Vanderbilt University School of Medicine, Nashville, Tennessee, in 1901, and was a member of the Lawrence County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Charles R. Applegate, M.D., of Newcastle, aged seventy, died at a local hospital on June eighth. Dr. Applegate graduated from the Kentucky School of Medicine, Louisville, in 1901.

Laura Jennings Cloud Haley, M.D., of Indianapolis, aged eighty-five, died on May eleventh. Dr. Haley graduated from the Physio-Medical College of Indiana, Indianapolis, in 1885.

Oscar U. Chenoweth, M.D., of Lafayette, aged sixty-four, died at his home on May twenty-sixth following a three month illness. Dr. Chenoweth was a graduate of the Rush Medical College, University of Chicago, in 1901. He was a member of the Tippecanoe County Medical Society, was a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Walter R. Cleveland, M.D., of Evansville, died on June tenth at the age of fifty-six. Dr. Cleveland graduated from the Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1906. He studied in Vienna in 1927, and specialized in roentgenology and radiology. He was certified by the American Board of Radiology, was a member of the Radiological Society of North America, the American Radium Society, the Vanderburgh County Medical Society, and the Indiana State Medical Association. He was a Fellow of the American Medical Association.

Albert T. Davis, M.D., of Marion, aged sixty-five, died at Rochester, Minnesota, on June tenth, following an operation. Dr. Davis graduated from the Medical College of Indiana, Indianapolis, in 1904, and he specialized in surgery. He served as a lieutenant in the Army Medical Corps during the World War, and he had served as consultant at the United States Veterans Hospital since 1923. Dr. Davis was a member of the Grant County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

Fred Atwood Dennis, M.D., of Crawfordsville, died at his home on May fourth, aged sixty-five. Dr. Dennis graduated from the Medical College of Indiana, Indianapolis, in 1898. He was a member of the Montgomery County Medical Society, the Indiana State Medical Association, and the American Medical Association.

John Chester Fleming, M.D., of Elkhart, aged sixty-seven, died on June eighth. Dr. Fleming graduated from the Northwestern University Medical School, Chicago, in 1895. He was particularly interested in surgery, and in 1910 he, with his family, went to Europe where he pursued postgraduate study in Berlin, Vienna, Berne, London and Edinburgh. He had practiced in Elkhart for forty-five years. He was a member of the American College of Surgeons, the Elkhart County Medical Society, and the Indiana State Medical Association, and he was a Fellow of the American Medical Association.

News Notes

Dr. Bonnell Souder of Auburn recently was elected president of the Indiana Federation of Business and Professional Women's Clubs.

Dr. M. E. Clark has moved from Coatesville to Cambridge City where he has opened an office.

Dr. D. S. Megenhardt, Indianapolis, and Miss Mary Virginia Kendall, Marion, were married May twenty-fifth.

Dr. B. P. Gill, who has been practicing at Eaton, has located in Mitchell, Indiana, where he will conduct a general practice.

Dr. George K. Hammersley of Indianapolis and Miss Mary Ellen Lemen of Osgood were married May sixteenth.

Dr. Harry E. Murphy of Franklin and Miss Helen Catt of Franklin were married June first.

Dr. C. E. Johnson of Rensselaer has been named county health officer for Jasper county to fill the unexpired term of the late Dr. A. R. Kresler.

Dr. A. Wayne Elsten of Anderson and Miss Anna Harting of Elwood were married recently.

Dr. D. D. Yoder has moved from Indianapolis to Columbus where he has opened an office in the Charlotte building. Dr. Yoder specializes in ophthalmology and otolaryngology.

Dr. C. V. Davison of Lafayette has opened an office in the Folk building, Williamsport, where he will conduct a general practice. Dr. Mier Bizer who was practicing in Williamsport has gone to Jeffersonville to continue his work.

Officers of the Fort Wayne Academy of Medicine and Surgery were elected at the annual dinner meeting, May fifteenth. They are: Dr. Eugene L. Bulson, president; Dr. S. R. Mercer, vice-president; and Dr. William R. Clark, secretary-treasurer.

Dr. Eugene L. Bulson of Fort Wayne has been appointed as one of the three members of a committee of the American College of Surgeons to serve with the American Orthoptic Council which supervises the training and certification of qualified orthoptic technicians.

Dr. H. L. Stanton of Evansville has been appointed president of the Evansville Board of Health to succeed Dr. H. C. Ruddick who resigned. Dr. Ruddick has been appointed president of the Indiana State Board of Medical Registration and Examination.

Dr. William F. Hughes, Jr., of Indianapolis, and Miss Wanema Alter Dickey, of Carlisle, Pennsylvania, were married June twenty-eighth, in St. Paul Episcopal Church, Baltimore, Maryland. Dr. Hughes is at present a member of the resident staff of ophthalmology in Johns Hopkins Hospital.

New officers of the Indiana Institute of Homeopathy are Dr. W. K. Bond, Greens Fork, president; Dr. J. H. Baldwin, Jeffersonville, honorary president; Dr. Arthur P. Schulz, Fort Wayne, first vice-president; Dr. William A. Fromhold, Indianapolis, second vice-president; Dr. J. M. Hicks, Jr., Huntington, secretary, and Dr. Frank A. Beardsley, Frankfort, treasurer.

The Leslie Dana Gold Medal awarded annually for outstanding achievements in the prevention of blindness and the conservation of vision will be presented this year to Dr. Arnold H. Knapp of New York City.

The twentieth annual meeting of the American Congress of Physical Therapy will be held September 1 to 5, inclusive, 1941, at the Mayflower Hotel, Washington, D. C. At the same time, the twenty-fifth annual meeting of the American Occupational Therapy Association will be held at the Mayflower Hotel.

The American College of Surgeons has announced that its twenty-sixth annual session will be held in St. Paul, Minnesota, April 20 to 24, 1942. Dr. Roger I. Lee, of Boston, is president of the College; Dr. John A. Lepak, of St. Paul, has been appointed general chairman. Mr. Edward R. Loveland, executive secretary of the College, will have charge of general management of the session.

The Division of Venereal Diseases of the U. S. Public Health Service has published two pamphlets (1) "Venereal Disease and National Defense" outlining the important elements of the Army-Navy-public health venereal disease control agreement as it relates to community action, and (2) "The Doctor Says" which points up the importance of

blood tests and physical examinations before marriage and stresses the vital role of the private practitioner. Physicians who want copies of the folders for distribution to patients may obtain them from the Superintendent of Documents, Washington, D. C., for one dollar per hundred copies.

The Board of Trustees of the United States Pharmacopoeial Convention held its annual meeting in New York City, May 24 and 25. Considerable attention was given to various questions involving the U. S. P. XII, and it is expected that the new revision will make its appearance before the close of 1941. Plans were considered for the issuance of monthly press releases covering various phases of pharmacopoeial matters. Dr. Cary Eggleston of New York City has been elected president of the Convention and a member of the Board of Trustees to fill the vacancy created by the recent death of Dr. Charles W. Edmunds.

MEDICAL TECHNICIANS AND LABORATORY HELPERS NEEDED BY THE GOVERNMENT

The U. S. Civil Service Commission wishes to call special attention to the examination for Medical Technician and Junior Laboratory Helper. A similar examination announced in the Fall of 1940 failed to produce enough qualified persons for these positions, and the Commission has found it necessary to reannounce the examination. Because of the need for qualified persons to carry on important work in connection with the National Defense work, *applications will be accepted until further public notice.*

Medical Technician positions pay from $1,620 to $2,000 a year; Junior Laboratory Helper positions, $1,440 a year. For Senior Medical Technician and Junior Laboratory Helper there are two optional subjects in which persons may qualify: General, and roentgenology. Persons applying for the full or assistant grades of Medical Technician may qualify also in surgery. Applicants must have had at least 14 units of high-school study; otherwise they must pass a written general test. Appropriate x-ray laboratory, clinical laboratory, or operating room experience is required. This must have been full-time paid experience. Completion of a 4-year college course with major study in biology, chemistry, physics, or medical technology may be substituted for part of the experience.

The need for Medical Technicians and Junior Laboratory Helpers in the National Defense program is immediate. Eligibles in the option *Surgical* are particularly needed. The Commission wishes to ask your cooperation in this recruiting program to secure persons who are qualified for and interested in this type of Government work.

Qualified persons should be urged to apply for further information on this examination at the office of the Secretary, Board of U. S. Civil Service Examiners, at any first- or second-class post office, or write to the Civil Service Commission, Washington, D. C.

DEFENSE SAVINGS BONDS

The sale of the Defense Savings Stamps and Bonds is on. Will H. Smith, Collector of Internal Revenue, and State Administrator for the sale of Defense Savings Bonds, states that patriotic Americans everywhere are asking themselves these days, "What can I do to help in the National Defense?" One of the biggest and best ways to help is by buying Defense Savings Stamps and Bonds. National Defense is creating more work for many wage earners of the United States, and putting more money in their pay envelopes. Thoughtful people figure that they should save a considerable part of this extra money to be spent later on, when they will need it more than they do now.

From the viewpoint of the individual, Defense Savings Bonds are an ideal way of accumulating money. For $18.75 you can buy a Government Bond which in ten years will be worth $25.00. A Defense Savings Bond is always worth what you paid for it. The United States Treasury guarantees this. At the end of the first year, your bond is worth something more than you paid for it, and every 6 months after that, until the end of 10 years, it becomes more valuable. If you hold a $25 bond (for which you paid $18.75) for 10 years, you will get your money back with 2.9% compound interest.

The primary purpose of the Defense Savings Program is to induce people to save systematically. Practically everyone knows from personal experience that the easiest way to save is to set aside a small sum frequently and regularly.

Our goal will be reached when every man, woman and child in the Nation understands and becomes a regular purchaser of Defense Savings Bonds and Stamps, whether it be a ten-cent stamp or a thousand-dollar bond. They are sold by postmasters and banks everywhere.

Mr. Smith gives these suggestions: Set aside, every day or every week, a dime, a quarter, a dollar, five dollars—as much as you can afford—and buy Defense Savings Stamps and Bonds. You will be helping the country defend itself; you will be helping to keep prices down; you will be helping to prevent hard times when the emergency is over; you will be setting something aside for a rainy day; you will be building an income for the future; you are helping your country, your family, and yourself when you save and buy Defense Savings Stamps and Bonds.

The organization of a medical advisory council to cooperate with national headquarters on problems relating to physical examination of registrants, as well as their prehabilitation and rehabilitation, has been announced, according to *Selective Service* for May 1, 1941. Members of

the council are Dr. Francis X. McGovern, chairman, chairman of the executive board of the Medical Society of the District of Columbia and state chairman of the Committee on Medical Preparedness of the A.M.A.; Dr. Henry C. Macatee, past president of the Medical Society of the District of Columbia and a delegate to the American Medical Association; Dr. Thomas S. Cullen, professor emeritus of gynecology, Johns Hopkins Medical School, and a trustee of the A.M.A.; Dr. Harvey B. Stone, associate professor of surgery, Johns Hopkins, and a member of the Committee on Medical Preparedness of the A.M.A.; Dr. Robert A. Bier, secretary of the Medical Advisory Council and liaison officer between the Council and national headquarters; and Theodore Wiprud, executive secretary of the Medical Society of the District of Columbia. The chief purpose of the council is to provide liaison between national headquarters of the Selective Service System, the American Medical Association, and the medical profession at large, and to determine and meet medical needs for the most efficient administration of Selective Service.

INDIANA PHYSICIANS ON ACTIVE DUTY WITH UNCLE SAM

(Editor's Note: The following lists were obtained from official sources and are the most accurate that could be obtained. Others may have been appointed since these lists were received, and further lists will be published as they are reported to us.)

ARMY MEDICAL RESERVE

Capt. Walter J. Aagesen, Ft. Benjamin Harrison, Ind.
First Lt. Robert P. Acher, Fort Oglethorpe, Ga.
First Lt. Samuel L. Adair, Brooks Field, Texas.
First Lt. David L. Adler, Fort Jackson, S. C.
First Lt. Loren F. Ake, Camp Polk, La.
First Lt. F. P. Albertson, Camp Shelby, Miss.
First Lt. E. J. Alexander, Camp Polk, La.
First Lt. Chas. J. Aucreman, Ft. Benjamin Harrison, Ind.
First Lt. Leslie M. Baker, Fort Oglethorpe, Ga.
First Lt. Douglas F. Barkley, Fort Oglethorpe, Ga.
First Lt. Wm. E. Barnett, Fort Knox, Ky.
First Lt. Ralph H. C. Beams, Camp Polk, La.
First Lt. Robert D. Berke, Fort Jackson, S. C.
Capt. Russell M. Blemker, Fort Knox, Ky.
First Lt. Norman R. Booher, Fort Benjamin Harrison, Ind.
Capt. Copeland C. Bowers, Ft. Benj. Harrison, Ind.
Lt. Col. Jesse W. Bowers, Ft. Benjamin Harrison, Ind.
First Lt. I. W. Brill, Fort Oglethorpe, Ga.
Major Roger W. Brookie, Camp Croft, S. C.
First Lt. Harry M. Brown, Fort Knox, Ky.
First Lt. John E. Carter, Camp Shelby, Miss.
First Lt. Wallace E. Childs, Ft. Knox, Ky.
First Lt. Benj. B. Cohen, Fort Jackson, S. Car.
First Lt. Morris Cohen, Camp Polk, La.
Capt. Harry M. Covell, Fort McClellan, Ala.
First Lt. Chas. A. Cutting, Fort Benjamin Harrison, Ind.
First Lt. Robert E. Daniels, Fort Jackson, S. Car.
First Lt. Morris Davidson, Scott Field, Ill.
Capt. William D. Davidson, Fort Knox, Ky.
Major Albert M. DeArmond, Carlisle Barracks, Pa.
First Lt. Gordon A. Dickinson, Fort Benning, Ga.
First Lt. Jack E. Dittmer, Louisville, Ky.
First Lt. Melvin Durkee, Fort Knox, Ky.
First Lt. Henry T. Earhart, Tullahoma, Tenn.
First Lt. Stephen R. Ellis, Fort Knox, Ky.
Capt. Milton W. Erdel, Fort Benning, Ga.
First Lt. Ben Firestein, Camp Wheeler, Macon, Ga.
First Lt. Kenneth B. Fisher, Ft. Benjamin Harrison, Ind.
First Lt. B. E. Fitzgerald, Patterson Field, Ohio.
Capt. Ray A. Fleetwood, Carlisle Barracks, Pa.
First Lt. J. O. Flora, Ft. Benjamin Harrison, Ind.
First Lt. William A. Gitlin, Fort Thomas, Ky.
Lt. Col. John C. Glackman, Denver, Colo.
First Lt. Hubert T. Goodman, Fort Oglethorpe, Ga.
First Lt James H. Gosman, Fort Oglethorpe, Ga.
First Lt. M. B. Gossard, Fort Benning, Ga.
Capt. Oliver W. Greer, Fort Knox, Ky.
First Lt. Ted L. Grissell, Camp Shelby, Miss.
First Lt. Robert H. Grove, Camp Shelby, Miss.
First Lt. Gordor H. Haggard, Fort Oglethorpe, Ga.
First Lt. Benj. L. Harrison, Fort Oglethorpe, Ga.
First Lt. B. J. Harvey, Fort Benning, Ga.
Capt. George A. Held, Ft. Knox, Ky.
First Lt. Thomas H. Hewlett, Fort Knox, Ky.
First Lt. Kenneth G. Hill, Fort Oglethorpe, Ga
First Lt. John L. Hillery, Fort Oglethorpe, Ga.
Major Will W. Holmes, Spartanburg, S. C.
First Lt. Russell K. Horsman, Ft. Benjamin Harrison, Ind.
Major George E. Iterman, Fort Knox, Ky.
First Lt. Robert B. Johnson, Fort Thomas, Ky.
Capt. E. E. Johnston, Fort Knox, Ky.
Capt. Francis P. Jones, Fort Knox, Ky.
First Lt. Bernard Karpel, Brooks Field, Texas.
First Lt. Nelson N. Kauffman, Fort Knox, Ky.
First Lt. Sidney A. Kauffman, Fort Jackson, S. C
Capt. Frank J. Kendrick, Fort Benning, Ga.
First Lt. Nicholas E. Keseric, Fort Jackson, S. C.
First Lt. John H. Kilmer, Fort Knox, Ky.
First Lt. James M. Kirtley, Ft. Benning, Ga.
Capt. George L. Kress, Warsaw, Ind.
First Lt. James L. Lamey, Ft. Benj. Harrison, Ind.
First Lt. Harold J. Lawn, Ft. Benj. Harrison, Ind.
First Lt. Ermil T. Leslie, Fort Benniing, Ga.
First Lt. William M. Loehr, Carlisle Barracks, Pa.
First Lt. Leonard C. Lund, Fort Knox, Ky.
First Lt. William B. Lybrook, Fort Hayes, Ohio.
Capt. Robert E. Lyons, Jr., Fort Knox, Ky.
First Lt. C. P. McLaughlin, Ft. Hayes, Ohio
Capt. James W. McEwen, Ft. Benjamin Harrison, Ind.
First Lt. L. M. McNaughton, Spartanburg, S. C.
First Lt. C. H. Marchant, Fort Knox, Ky.
First Lt. George W. Marsh, Camp Shelby, Miss.
First Lt. Everett E. Mason, Camp Blanding, Fla.
First Lt. Wm. B. Matthew, Camp Shelby, Miss.
Capt. Earl W. Mericle, Fort Benjamin Harrison, Ind.
First Lt. Basil M. Merrell, Camp Shelby, Miss.
First Lt. Edgar G. Miller, Macon, Ga.
First Lt. Orval J. Miller, Spartanburg, S. C.
First Lt. Robert B. Miller, Fort Benning, Ga.
Capt. Irving Mishkin, Fort Benjamin Harrison, Ind.
First Lt. Marion H. Morris, Fort Oglethorpe, Ga.
First Lt. Sydney S. Norwick, Fort Knox, Ky.
First Lt. Benj. F. Novack, Fort Knox, Ky.
First Lt. B. E. Paletz, Fort Jackson, S. C.
First Lt. John M. Palm, Ft. Knox, Ky.
First Lt. D. D. Parke, Fort Benjamin, Harrison, Ind.
First Lt. Norman F. Peacock, Fort Thomas, Ky.
First Lt. James T. Pebworth, Fort Benjamin Harrison, Ind.
First Lt. John P. Pennell, Fort Benning, Ga.
First Lt. Harold G. Petitjean, Camp Polk, La. (Inact.)
First Lt. Douglas W. Price, Camp Blanding, Fla.
First Lt. S. M. Radivojec, Fort Custer, Mich.
First Lt. Hugh S. Ramsey, Fort Oglethorpe, Ga.
First Lt. Alden J. Rarick, Petersburg, Va.
First Lt. Roger R. Reed, Fort Knox, Ky.
Major William C. Reed, Camp Shelby, Miss.
First Lt. H. C. Rininger, Fort Riley, Kans.
Capt. G. W. Ritteman, Ft. Harrison, Ind.
First Lt. Ralph G. Rohner, Washington, D. C.
Capt. James R. Rohrer, Fort Knox, Ky.
First Lt. Floyd T. Romberger, Akron, Ohio.
First Lt. Maurice Rothberg, Fort Oglethorpe, Ga.

First Lt. Milton R. Rubin, Columbia, S. C.
Capt. William A. Sandy, Rantoul, Ill.
First Lt. Richard K. Schmitt, Camp Shelby, Miss.
First Lt. Samuel L. Scott, Columbia, S. C.
First Lt. Herbert L. Sedam, Camp Peay, Tullahoma, Tenn.
First Lt. William K. Sennett, Akron, Ohio.
First Lt. John L. Sharp, Fort Knox, Ky.
First Lt. Gerald Shortz, Macon, Ga.
First Lt. Wm. B. Sigmund, Fort Oglethorpe, Ga.
First Lt. Frank G. Sink, Camp Grant, Ill.
Capt. J. S. Skobba, Atlanta, Ga.
First Lt. Earl C. Slaughter, Macon, Ga.
First Lt. Crystal R. Slick, Fort Jackson, S. C.
Lt. Col. Roy L. Smith, Fort Jackson, S. C.
First Lt. Joseph J. Spalding, Hot Springs Natl. Park, Ark
First Lt. John S. Stanley, Fort Knox, Ky.
First Lt. Lowell R. Stephens, Fort Oglethorpe, Ga.
First Lt. Sydney L. Stevens, Fort Jackson, S. C.
Lt. Col. W. M. Stout, Camp Shelby, Miss.
First Lt. Wm. M. Stubbins, Fort Oglethorpe, Ga.
First Lt. Wm. E. Sutton, Fort Knox, Ky.
First Lt. Howard E. Sweet, Spartanburg, S. C.
Capt. Clifford C. Taylor, Houston, Texas.
First Lt. Jay W. Thom, Fort Benjamin Harrison, Ind.
First Lt. Milton E. Tomak, Ft. Benjamin Harrison, Ind.
Capt. Morris C. Thomas, Fort Knox, Ky.
First Lt. John M. Thompson, Fort Jackson, S. C.
Major George H. Van Kirk, Spartanburg, S. C.
Capt. Edward H. Wagenaar, Fort Benjamin Harrison, Ind.
First Lt. John C. Warren, Camp Shelby, Miss.
First Lt. Wm. W. Washburn, Fort Benning, Ga.
First Lt. Herman L. Watson, Fort Knox, Ky.
First Lt. Harvey E. White, Fort Jackson, S. C.
First Lt. James V. White, Fort Oglethorpe, Ga.
First Lt. James A. Wier, Fort Benjamin Harrison, Ind.
Lt. Col. Irving H. Willett, Indianapolis, Ind.
First Lt. Orley E. Wilson, Fort Custer, Mich.
First Lt. Don J. Wolfram, Carlisle Barracks, Pa.
First Lt. John W. Woner, Huntington, W. Va.
First Lt. Opal L. Wood, Fort Oglethorpe, Ga.
Major J. E. Wyttenbach, Macon, Ga.
First Lt. Harold F. Zwick, Fort McClellan, Alabama.

U. S. NAVAL MEDICAL CORPS

Capt. R. L. Nattkemper, U. S. Naval Hospital, Great Lakes, Ill.
Capt. M. D. Willcutts, Navy Department, Washington, D. C.
Comdr. E. E. Smith, U. S. Naval Air Station, Jacksonville, Fla.
Comdr. O. W. Grisier, U. S. S. New Mexico.
Comdr. Otis Wildman, Naval Medical School, Washington, D. C.
Comdr. M. L. Marquette, U. S. Naval Hospital, Mare Island, Calif.
Comdr. G. D. Thompson, U. S. Naval Air Station, Anacostia, D. C.
Comdr. W. H. Funk, U. S. Naval Hospital, Puget Sound, Wash.
Comdr. G. W. Wilson, U. S. Naval Air Station, Quonsett Pt., R. I.
Comdr. H. W. Miller, Hospital Corps School, San Diego, Calif.
Comdr. A. A. Shadday, U. S. Naval Hospital, Charleston, S. C.
Lt.-Comdr. James Humbert, Navy Recruiting Station, Little Rock, Ark.
Lt.-Comdr. J. F. Lankford, U. S. Naval Hospital, Pensacola, Fla.
Lt.-Comdr. B. N. Summers, U. S. Naval Hospital, Newport, R. I.
Lt.-Comdr. E. P. Kunkle, U. S. S. Colorado.
Lt.-Comdr. O. A. Smith, U. S. S. San Francisco.
Lt.-Comdr. H. D. Templeton, U. S. Naval Hospital, Brooklyn, N. Y.
Lt.-Comdr. A. B. Chesser, Navy Department, Washington, D. C.
Lt.-Comdr. L. R. Newhouser, Naval Medical School, Washington, D. C.
Lt.-Comdr. D. O. Zerbaugh, Norfolk Naval Hospital, Portsmouth, Va.
Lt.-Comdr. W. E. Carskadon, U. S. Naval Hospital, Parris Island, S. C.
Lt.-Comdr. J. G. Wright, Staff, Commander, Scouting Force.
Lt.-Comdr. C. W. Shilling, Submarine Base, New London, Conn.
Lt.-Comdr. Thomas Carter, Navy Department, Washington, D. C.
Lt.-Comdr. G. E. Stahr, Navy Department, Washington, D. C.
Lt. C. L. Andrews, Naval Hospital, San Diego, Calif.
Lt. O. W. Wickstrom, Naval Hospital, Annapolis, Md.
Lt. D. O. Wissinger, Naval Academy, Annapolis, Md.
Lt. G. R. Hogshire, Jr., Asiatic Station.
Lt. M. H. Goodwin, U. S. S. Langley.
Lt. M. E. Roudebush, Asiatic Station.
Lt. J. M. Hanner, U. S. S. Wright.
Lieut.(jg). R. B. Frankboner, Navy Department, Washington, D. C.
Lieut.(jg). R. G. Gilbert, Naval Ammunition Depot, Honolulu, T. H.
Lieut.(jg). R. R. Rambo, Destroyer Squadron No. 27.
Lieut.(jg). S. H. Oliver, Naval Air Station, Seattle, Wash.
Lieu.(jg). O. C. Baumgarten, Fleet Marine Force, Quantico, Va.
Lieut.(jg). B. L. Kendall, U. S. S. Rapidan.
Lieut.(jg). Paul Deranian, U. S. S. Wichita.
Lieut.(jg). G. M. Hutto, Navy Yard, Honolulu, Pearl Harbor, T. H.
Lieut.(jg). James Crawford, Asiatic Station.

NAVAL RESERVE MEDICAL OFFICERS

Lt.-Comdr. Pierce MacKenzie, Evansville, Ind.
Comdr. John Theron Short, Fort Wayne, Ind.
Lieut.(jg). Clarence Conrad Bosselmann, Fort Wayne, Ind.
Lt.-Comdr. Everett Leo Hays, Indianapolis, Ind.
Lt. Maurice Emmitt Gross, Ladoga, Ind.
Lieut.(jg). Robert Wesley Phares, Muncie, Ind.
Lt. Stephen John Donovan, Michigan City, Ind.
Lt.-Comdr. William D. C. Day, Seymour, Ind.
Lt.-Comdr. Harry Howard Slominski, South Bend, Ind.
Lt. Lester D. Bibler, 16th Battalion, USMCR, Indianapolis, Ind.
Lt. Frank McKinley Hall, U. S. Navy Recruiting Station, Indianapolis, Ind.
Lt. John James Hayes, Norfolk Naval Hospital, Portsmouth, Va.
Lt. Albert Hanly Held, U. S. S. Salomonite.
Lt.-Comdr. John Reed Phillips, Second Marine Division, Fleet Marine Force, San Diego, Calif.
Lieut.(jg). Floyd LaVerne Burris, Michigan City.
Lt. Harold Ernst List, MC-V(S), USNR, Marion, Ind.

MEDICAL OFFICERS WITH INDIANA NATIONAL GUARD

(All of the following were sent to Camp Shelby in January, 1941.)

Capt. Asa W. Bloom, 150th Field Artillery (Marion).
Capt. Robert M. Brown, 113th Med. Regiment (Marion).
Major Glenn E. Comstock, 113th Engineers (Gary).
First Lt. Leo F. Connoy, 38th Div. (Indianapolis).
First Lt. Francis E. Carrel, 151st Infantry (Indianapolis).
Major Maurice E. Glock, 152nd Infantry (Ft. Wayne).
Major John H. Greist, 113th Med. Regiment (Indianapolis).
Col. Franklin T. Hallam, 113th Med. Regiment (Indianapolis).
Major Robert D. Howell, 113th Med. Regiment (Indianapolis).
Capt. Lenpha P. Hart, 113th Med. Regiment (Evansville).
Major James E. Jobes, 113th Med. Regiment (Indianapolis).
Major Forrest E. Keeling, 139th Field Artillery (Portland).
Capt. John Lansford, 139th Field Artillery (Redkey).
Capt. Charles H. Manley, 151st Infantry (Rising Sun).

Capt. Albert L. Marshall, 151st Infantry (Indianapolis).
First Lt. Donald F. Mueller, 152nd Infantry (Ft. Wayne).
First Lt. Joseph J. Mullen, 152nd Infantry (Ft. Wayne).
Capt. John H. Oyer, 152nd Infantry (Ft. Wayne).
First Lt. Malcolm O. Peeler, 152nd Infantry (Ft. Wayne).
Capt. Dudley A. Pfaff, 113th Observation Squadron (Indianapolis).
Major Frank B. Ramsey, 113th Med. Regiment (Indianapolis).
Major John A. Ritchey, 150th Field Artillery (Marion).
First Lt. Ivan W. Scott, 151st Infantry (Indianapolis).
Lt. Col. David H. Sluss, 113th Med. Regiment (Indianapolis).
Major Frederick C. Warfel, 151st Infantry (Indianapolis).
Capt. Richard N. Washburn, 113th Med. Regiment (Rensselaer).

FEDERAL FOOD AND DRUG ANNOUNCEMENT

Information Concerning Drugs That Should be Sold Only to or Upon the Prescription of Physicians, Dentists, or Veterinarians

The U. S. Food and Drug Administration has received numerous requests from drug manufacturers, retail and wholesale drug associations, and others, for a list of those drug products which it considers dangerous when sold otherwise than on the prescription of a physician, dentist, or veterinarian licensed by law to administer drugs.

In answer to such requests, the Administration has pointed out that the Food, Drug, and Cosmetic Act places upon the manufacturer and the distributor the responsibility for properly safeguarding the marketing of drugs which may be dangerous to the purchaser if distributed without restriction. Obviously, it is impossible to list all drugs which may be dangerous since not only the compositions but also the directions for use and the conditions in which their use is recommended may have a very definite bearing on the question of safety or danger. As examples of drugs which are considered dangerous when distributed for use otherwise than on prescription, the following have been mentioned:

Aconite; Aminopyrine; Barbiturates; Benzedrine sulfate (for internal use); Cantharides (for internal use); Chrysarobin or goa powder; Chrysophanic acid; Cinchophen, Neocinchophen, and other cinchophen derivatives; Colchicine; Colchicum; Emetine; Phosphides; Phosphorus; Radium; Sulfanilamide; Sulfapyridine; Sulfathiazole; Tansy, Tansy Oil; Thiocyanates; and Thyroid.

The anthelmintic drugs: Carbon tetrachloride; Tetrachlorethylene; Male fern (aspidium); Santonin; Wormseed oil (chenopodium oil); and Thymol.

It is our opinion that preparations containing bromides should not be sold without prescription if the dosage provided involves the consumption of more than 30 grains per day or more than 15 grains during any 3-hour period.

The same is true of acetanilid, in the case of medicines that provide a total daily intake of more than 5 grains or more than 2½ grains during any 3-hour period.

For bromide-acetanilid combinations, we have suggested that preparations for lay use should not provide more than a total daily dose of 15 grains of sodium bromide and 5 grains of acetanilid, or more than 7½ grains of sodium bromide and 2½ grains of acetanilid during any 3-hour period. Comparable amounts of other bromide preparations should, of course, be subjected to the same restrictions.

There is ample scientific evidence to support the view that preparations providing a daily dose of more than 15 grains of acetophenetidin or more than 15 grains of antipyrine are dangerous within the meaning of section 502 (j) when distributed for indiscriminate lay use. Investigations which are currently in progress strongly suggest the probability that somewhat smaller daily doses of these drugs may likewise be dangerous when consumed indiscriminately. After public notice, our regulatory program will, of course, include actions based on sales of acetophenetidin and antipyrine under circumstances providing for a somewhat smaller daily dose if scientific opinion becomes available to establish the illegality of such sales.

In our judgment, epinephrine in solution of 1% or stronger cannot safely be indiscriminately used, and the same is true of ipecac in daily dosage greater than 10 grains, as well as of strychnine in a daily dose greater than 1/20 grain.

We have also expressed the opinion that products containing therapeutically effective proportions of digitalis, squill, strophanthus, or other pharmacologically related drugs may not be safe for indiscriminate distribution.

It has been our experience that manufacturers of such drugs as have been mentioned have taken advantage of the regulation permitting omission of directions for use and substitution of the so-called "prescription legend." Where the legend "Caution: To be used only by or on the prescription of a Physician (Dentist, or Veterinarian)" appears upon the package in lieu of directions for use, it is the obligation of the retailer to observe the injunction that the article be dispensed only upon prescription.

The fact that the Federal law is applicable to the distribution by retailers of drugs which have been in interstate commerce in no way restricts the enforcement of State and local acts relating to the sale of drugs or the practice of pharmacy.

OTHER RESTRICTED DRUGS

Narcotic and hypnotic drugs and their preparations, which are not in the "dangerous" list, should be dispensed over the counter only if they are labeled with the legend: "WARNING: May be habit-forming." The drugs so designated thus far, which should be so labeled and which have not been placed in the "dangerous drug" classification, are:

Alpha eucaine	Chloral
Beta-eucaine	Codeine
Bromal	Paraldehyde
Carbromal	Peyote
	Sulfonmethane

together with any chemical derivatives of these drugs.

In this habit-forming list, very few problems will arise for the retail druggist, because most of them never would be sold over the counter in any event. However, every druggist should be aware of the restrictions.

The Marihuana drugs (cannabis) are covered in other laws, and the narcotics covered by the Harrison Law are also in a separate classification, and should be dispensed only on physicians' prescriptions by druggists having the required special tax stamps.

INDIANA UNIVERSITY NEWS NOTES

The doctor of medicine degree was granted to 97 medical students at the Indiana University annual commencement June 2. Recipients of the degree and where they will serve their internship are as follows:

Victor Albright, Bedford; Joseph Eastman, Jr., Indianapolis; Mars Ferrell, Fortville; Ray Firestein, South Bend; Lester Hardy, Lexington; Laura Hare and Carroll Hasewinkel, Indianapolis; John Heubi, Jeffersonville; Don E. Johnson, Reynolds; Herbert L. Joseph, Ligonier; Quentin Kintner, North Manchester; John Ling, Hebron; Hiram Nestmann, Wheeling, West Va.; Leo Nonte, Loogootee; Ottis Olvey, Noblesville; Harry Schell, Rome City; Lawson Smith, Indianapolis; Destiny Storey, Washington; George Vale, Fort Wayne; Donald E. Vivian, New Castle; Jacob Whallon, Indianapolis, and H. Haskell Ziperman, New York City, all at the Indiana University Hospitals of Indianapolis.

Harry Anderson, Indianapolis; Howard Beaver, Rensselaer; Joe Boughman, Kokomo; Lee Brayton, Indianapolis; John Bretz, Huntingburg; William Browning, Indianapolis; James M. Davis, Anderson; Rolland Deputy, Paris Crossing; Murray Harden, Covington; Lowell Henderson, Kokomo; Nolan Hibner, Monticello; Francis Hummons, Indianapolis; Joe Humphreys, Darlington; Charles Jones, Franklin; William M. Kendrick, Jr., Indianapolis; John Scherschel, Bedford; Gabriel Schuchman, Indianapolis; Samuel Smith, Washington; Carl Sputh, Jr., Indianapolis; Adron Sullenger, Boonville; William Thompson, Winamac; James Warriner, Indianapolis; William Wissman, Columbus; William Yocum, Coal City, and Woodson C. Young, Indianapolis, all at the City Hospital of Indianapolis.

DeWitt Brown, New Augusta; Charles Deppe, Franklin; James Kaler, Jr., South Whitley; Charles Klamer, Evansville; Carl C. Kuehn, Muncie; Roy Pearce, Terre Haute; Roland Reppert, Decatur; Loren Schmidt, West Terre Haute; Morris C. Snyder, Amboy, and Jason Weiss, Indianapolis, all at the Methodist Hospital, Indianapolis.

Frederick Allen, Fredericksburg; Buckman F. Gardner, Indianapolis; Maurice C. Hollingsworth, Richmond; Raleigh Miller, Farmland; Joseph Shugart, Jonesboro, and Julius T. Steffen, Bippus, all at St. Vincent's Hospital of Indianapolis.

Dorothy Darling, Gary, and Louis Sandock, South Bend, at Epworth Hospital of South Bend.

Robert W. Donnelly, Sullivan, and Philip Hedrick, Indianapolis, at Christ Hospital, Cincinnati, Ohio.

Irwin S. Hostetter, Roachdale; Burton Kintner, North Manchester, and Jay Overmyer, Winchester, Ball Memorial Hospital of Muncie.

Leon Kresler, Rensselaer, and William Krieble, Terre Haute, St. Louis City Hospital.

Russell Morrical, Logansport; Richard Parrish,

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:
"Your prompt response from the first and evident concern for the protection of our professional reputations as well as our financial interests to the successful termination of the case relieved us of all worry."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(56,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $32.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $64.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $96.00 per year

39 years under the same management

$2,000,000.00 INVESTED ASSETS
$10,000,000.00 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

Decatur, and Carlyle B. Slabaugh, Elkhart, U.S. Naval Hospitals.

Robert Axtell, Indianapolis, Station Hospital, Fort Sam Houston, Texas; Lawrence Cantow, New York, Metropolitan Hospital of New York; George Cline, Muncie, William J. Seymour Hospital of Eloise, Michigan; Jack Dick, Huntington, Henry Ford Hospital, Detroit, Mich.; Leo Dobrin, New York City, Fordham Hospital of New York; Joseph Ferrara, Jr., State of Wisconsin General Hospital, Madison; Albert Goodrich, Bloomington, Springfield (Ohio) City Hospital; Jack Hall, Indianapolis, assistant in pathology, I.U. Medical Center.

Antha Hamilton, Wirt, St. Anthony Hospital, Terre Haute; Jack Hannah, Rising Sun, Boston Marine Hospital, Boston, Mass.; Russel Hummel, Marion, West Suburban Hospital, Oak Park, Ill.; Marcel Lewis, Marion, Charles S. Wilson Memorial Hospital, Johnson City, New York; John Miklozek, Terre Haute, St. Louis University Hospital, St. Louis, Mo.; Charles Miller, New Carlisle, U.S. Public Health Service, San Francisco, Calif.; Lowell Redding, Markle, Henry Ford Hospital, Detroit, Mich.; Embree Rose, Linton, not taking an internship; Philip W. Rothrock, Bloomington, Philadelphia General Hospital, Philadelphia, Pa.

Joseph A. Santangelo, Newark, N. J., Medical Center, Jersey City, New Jersey; Arthur W. Schappell, Cleveland (Ohio) City Hospital; Lowell R. Steele, Lafayette, U.S. Army, Fort Sam Houston, Texas; Charles Williams, Dale, Lucas County Hospital, Toledo, Ohio; Richard Yocum, Coal City, U.S. Public Health Service, Chicago.

The following received the graduate nurse degree from Indiana University June 2: Opal Arms, University Park, Iowa; Mary Elizabeth Boles, Richmond; Alice Brameier, Florence; Ferrell Fenimore, North Judson; Gladys Frasch, Attica; Mary Ann Harper, Morristown; Lucia Haynes, North Troy, New York; Eva Huhnke, Hamlet; Martha McClain, Thorntown; Frances McCowen, Terre Haute; Charlotte Maas, Indianapolis; Emmadell Myers, Bluffton; Elizabeth O'Connell, Indianapolis; Geneva Sims, Greencastle, and Virginia Sims, Indianapolis.

LOCAL SOCIETY REPORTS

Carroll County Medical Society members held a dinner meeting at Camden on May eighth. Dr. N. H. Prentiss, of Fort Wayne, spoke on "Electro Therapeutics." Eleven members were in attendance at this meeting.

* * *

Clay County Medical Society members met in Brazil on June third. The evening was devoted to a discussion of the reorganization of the Venereal Disease Control program for Clay County. Seven members attended the meeting.

* * *

Delaware-Blackford County Medical Society members met at the Hartford City Country Club, Hartford City, on May twentieth. Dr. Jean Morris, of Hartford City, gave a paper entitled "Diagnosis and Treatment of Primary and Secondary Hypertension." Dr. L. E. Werry, of Hartford City, was the discussant. Twenty-five members and two guests were present.

* * *

Elkhart County Medical Society members held a meeting on June twelfth at The Lodge, Christiana Lake, Adamsville, Michigan. Dr. H. S. Bender, Dean of Goshen College, spoke on "Conditions in Europe." Members of the auxiliary and other guests were entertained. A hobby show was conducted in connection with this meeting to which several doctors sent exhibits. Sixty-five members and guests were in attendance.

* * *

Fayette-Franklin County Medical Society members held a meeting at the McFarlan Hotel, Connersville, on May thirteenth. Dr. Don Bowers, of Indianapolis, spoke on "Physiotherapy." Thirteen members were present.

* * *

Fort Wayne (Allen County) Medical Society members met at the Lutheran Hospital on May twentieth. Case reports were given by Drs. E. R. Carlo, Wayne Glock, J. T. Short, Karl M. Beierlein, and A. N. Ferguson. Forty-five members attended this meeting.

A meeting was held in the Chamber of Commerce Building on May twenty-seventh for the election of officers.

* * *

Fountain-Warren County Medical Society members held their regular monthly meeting at Covington on June fourth. Dr. E. B. Mumford, of Indianapolis, was the guest speaker; his subject was "Fractures."

* * *

Gibson County Medical Society members met at the Emerson Hotel, Princeton, on May seventeenth. Dr. B. D. Rosenak, of Indianapolis, spoke on "Functional Disturbances of the Colon and Gall Bladder." Eighteen members were present.

* * *

Grant County Medical Society members held a meeting on May twenty-second at which Dr. Robert Moore, of Indianapolis, was the principal speaker, his subject being "Common Heart Diseases Seen in General Practice."

* * *

Hamilton County Medical Society members held a meeting on May thirteenth at which Captain Glen Ward Lee, chief medical officer of the State Selective Service Board was the guest speaker.

* * *

Indianapolis (Marion County) Medical Society members met at the Athletic Club on May twentieth in a joint meeting with the Seventh District Medical Society. The meeting was in the form of a quiz program on "Roentgenology" and the following doctors participated: Drs. Ralph Lochry, C. A.

For the local Treatment of Acute Anterior Urethritis
(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE*
Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae.[1] An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., 23, 201 (March), 1939.

A complete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

Stayton, W. E. Pennington, Raymond Beeler, Lester A. Smith, and Harold C. Ochsner.

On May twenty-seventh a meeting was held at which a symposium on the "Menopause" was conducted by Drs. I. J. Kwitney, David A. Boyd, and Maurice Kahler.

* * *

Jasper-Newton County Medical Society members held a meeting in Morocco on May twenty-ninth. Dr. Frank Deneen of Bloomington, Illinois, spoke on "Goiter." Ten members were present.

* * *

Laporte County Medical Society members met at the Spaulding Hotel, Michigan City, on May fifteenth. Dr. Loyal S. Davis, Chairman of the Department of Surgery of Northwestern University Medical School, gave a paper entitled "Surgical Treatment of Essential Hypertension." Eighteen members attended the meeting.

* * *

Madison County Medical Society members held a dinner meeting at the Edgewood Country Club on May nineteenth. Dr. D. C. Hines, of the Research Department of Eli Lilly Company, spoke on "Hormones and Vitamins." Twenty-five members were present.

* * *

Noble County Medical Society members held a meeting at Kendallville on May thirteenth. Dr. Emor L. Cartwright, of Fort Wayne, was the principal speaker, his subject being "Diseases of Anus, Rectum and Colon." The paper was illustrated with lantern slides. Eighteen members were present.

* * *

Pike County Medical Society members held a business meeting at the county nurses' office on May sixteenth. Officers were elected for the ensuing year.

* * *

Randolph County Medical Society members met at the Randolph County Hospital on May twelfth. Dr. T. R. Hayes, of Muncie, addressed the society on the subject "Diseases of the Prostate."

* * *

St. Joseph County Medical Society members held a dinner dance at the South Bend Country Club on May twenty-eighth. Eighty couples were in attendance.

* * *

Tippecanoe County Medical Society members met at the Lincoln Lodge on May thirteenth. Dr. Harry E. Mock, of Chicago, talked on "Head Injuries and Skull Fractures." His talk was followed by a discussion. Fifty-four members were present at this meeting.

At a meeting held on June tenth, Dr. G. B. Eusterman of Mayo Clinic, spoke on "Chronic Peptic Ulcer and Gastritis—Diagnosis and Treatment." His talk was illustrated with lantern slides. Fifty members were present.

* * *

Vigo County Medical Society members, the Terre Haute Academy of Medicine, the Esculapian So-

ADVERTISERS IN THIS ISSUE

Barry Allergy Laboratories, Detroit xxiii
Borden Company, New York xi
Cincinnati Sanitarium xvii
Claypool Hotel, Indianapolis xxvi
Coca Cola, Atlanta, Georgia xiv
Commercial Announcements xxxviii
Cook County Graduate School, Chicago xviii
Corn Products Sales Company, New York xvi
Heid's Health Shoes, Indianapolis xii
Holland-Rantos Company, Inc., New York v
Hord's Sanitarium, Anchorage, Ky xix
Hynson, Westcott and Dunning, Baltimore, Md xxxviii
Indiana University Medical School ..... 4th cover
Lederle Laboratories, New York xiii
Eli Lilly & Company, Indianapolis xx
Louisville Neuropathic Sanitarium, Louisville xvii
Luzier's Cosmetics and Perfumes xxxviii
Maples Sanitarium, Lima, Ohio xvii
McMillen Sanitarium, Columbus, Ohio xvii
Mead Johnson & Company, Evansville iv
Medical Protective Co., Wheaton, Ill xxi
Milwaukee Sanitarium, Wauwatosa, Wisc ..... 4th cover
Neuronhurst—Fletcher's Sanitarium, Indianapolis xviii
Parke, Davis & Company, Detroit vii
Petrolagar Company, Chicago ..... 2nd cover
Physicians' Casualty Association, Omaha, Neb xxi
Physicians' Directory xxvii
Pitman-Moore Company, Indianapolis xv
Plymouth Sanitarium, Plymouth, Indiana xix
Radium Emanation Corporation, New York xiv
Radium & Radon Corporation, Chicago xii
Rupp & Bowman, Toledo, Ohio xii
Sharp & Dohme, Philadelphia, Pa xxxix
S.M.A. Corporation, Chicago ix
South Bend Medical Laboratory xviii
E. R. Squibb & Sons, New York xxv
Sterne Memorial Hospital, Indianapolis xviii
Stokes Hospital, Louisville, Ky xv
Upjohn Company, Kalamazoo, Mich iii
Waukesha Springs Sanitarium, Waukesha, Wisc xvii
White-Haines Optical Co., Indianapolis xii
Wyeth, John & Bro., Philadelphia xxiii
Zemmer Co., Pittsburgh xxvi

(Continued from page xxii.)

ciety of the Wabash Valley, and the Fifth District Medical Society held a joint dinner meeting at the Terre Haute House on May third. Dr. A. R. Barnes, of Rochester, Minnesota, spoke on "Heart Disorders."

SECOND DISTRICT MEDICAL SOCIETY MEETING

Second Councilor District members held a meeting at the Elks Club, Vincennes, on May twenty-seventh. The program beginning at 5:00 p. m. was as follows:

Color Movie—"Vitamin B Complex."

Dinner, with members of the Knox County Medical Society acting as hosts.

Business Meeting.

Scientific Program:

"Hypertension—Etiology, Symptoms and Diagnosis," Dr. K. S. Kohlstaedt, Indianapolis.

"Hypertension—Treatment," Dr. A. C. Corcoran, Indianapolis.

Talk by Dr. A. M. Mitchell, Terre Haute.

J. S. Brown, M.D., *Secretary.*

* * *

ELEVENTH DISTRICT MEDICAL SOCIETY MEETING

Eleventh Councilor District members held their sixty-fifth semi-annual meeting at the Elks Club, Kokomo, on May twenty-first. A golf tournament was held in the morning, followed by a clinic at 10:30 a. m., on "Renal Diseases" conducted by Dr. Wayne L. Ritter of Indianapolis. The afternoon program consisted of the following:

Business Meeting.

"Presidential Address," by C. R. Herd, M.D., Peru.

"Injuries to the Chest, combined with Abdominal Injuries of the Extremities," by William R. Cubbins, M.D., of Chicago, followed by a general discussion.

"Treatment of Renal Hypertension," by Wayne L. Ritter, M.D., of Indianapolis, followed by a discussion.

Honorable Glen R. Hillis, of Kokomo, member of the National Committee of the American Legion, was the guest speaker at the banquet, his subject being "Americanism."

O. G. Brubaker, M.D., *Secretary.*

THE BUREAU OF PUBLICITY

April 28, 1941.

Present: H. G. Hamer, M.D., chairman; F. W. Taylor, M.D.; A. M. Mitchell, M.D., president, and T. A. Hendricks, executive secretary.

The following releases were presented to the Bureau:

May 10—"Defense and National Hospital Day." Approved.
May 17—"Spring Exercise." Approved.
May 24—"That Ole Swimmin' Hole." Tentatively approved.
June 7—"Diving." Two ear, nose and throat specialists are to be asked to collaborate in preparing this release.
June 14—"Safety in Fishing." (Season opens June 16, 1941.)
June 21—"Poison Ivy." It was suggested that material from which a release can be prepared upon this subject be obtained from some dermatologist.

(Continued on page xxvi.)

For Fall Hay Fever
SQUIBB POLLEN EXTRACTS

STARTING with August and until the time of frost, the wind-borne weed pollens are the chief offenders in causing hay fever. The following Squibb Allergenic Extracts, depending on locality, are useful at this season:

Ragweed Combined	Shadscales
Cocklebur	Wormwoods
Ragweed and Cocklebur Combined	Sheep Sorrel
Russian Thistle	

These are supplied in 5-cc. vials—which, when used with the Special Diluent Package, offer an economical means of reducing the sensitivity of hay fever sufferers.

Very convenient, too, is the three-vial package of Ragweed Combined and Ragweed and Cocklebur Combined.

Squibb Allergenic Extracts are highly potent, stable and uniform in dosage. They are standardized in protein nitrogen units. This unit has been shown by Cooke and Stull[1] to be a very close measure of allergenic activity.

Special Prescription Combinations

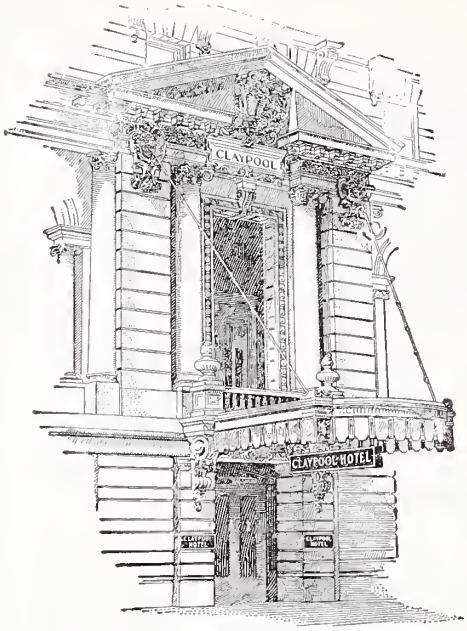
A service is available to physicians whose patients require combinations of pollen extracts not regularly supplied or in special proportion.

Physicians are invited to write concerning their problems in treating patients with hay fever. Our experience of over twenty years in making Pollen Extracts may be most helpful. Address the Medical Department, E. R. Squibb & Sons, 745 Fifth Ave., New York, N. Y.

[1] Cooke, R. A., and Stull, A.: *J. Allergy* 4: 87, 1933.

E·R·SQUIBB & SONS

Manufacturing Chemists to the Medical Profession Since 1858



"The Doorway to Hoosier Hospitality"

INDIANA'S LEADING HOTEL

•

Friendliness — Comfort — Service

•

Our private dining rooms accommodate from ten to one thousand. We want you to enjoy the use of our excellent facilities for your parties and banquets.

The CLAYPOOL Hotel

INDIANAPOLIS

(Continued from page xxiv.)

Reports on medical meetings:

April 16—Parke-Vermillion County Medical Society, Clinton, Ind. "Some Medical and Surgical Aspects of Physical Therapy." (10 present.)

April 18—Cass County Medical Society, Logansport. "The Medical Defense System in Indiana and Physical Standards of Selective Service." (18 present.)

Meetings to be held:

County Society meeting: May 13—Vigo County Medical Society, Terre Haute.

District Society meetings:

May 2—Fifth District Medical Society, Terre Haute.
May 8—First District Medical Society, Princeton.
May 14—Tenth District Medical Society, Gary.
May 15—Sixth District Medical Society, Newcastle.
May 21—Fourth District Medical Society, Batesville.
May 21—Eleventh District Medical Society, Kokomo.
May 22—Ninth District Medical Society, Frankfort.
May 27—Second District Medical Society, Vincennes.
June 11—Eighth District Medical Society, Winchester.

Correspondence of the Bureau with the League of Women Voters and the American Medical Association in regard to the survey on socialized medicine reviewed by the Bureau.

INDIANA STATE BOARD OF HEALTH

BUREAU OF COMMUNICABLE DISEASE

MONTHLY REPORT, APRIL, 1941

Diseases	*April 1941*	*March 1941*	*February 1941*	*April 1940*	*April 1939*
Tuberculosis	70	104	51	146	240
Chicken Pox	487	794	538	309	386
Measles	4715	3791	1107	105	100
Scarlet Fever	570	898	661	766	961
Smallpox	2	8	3	6	220
Typhoid Fever	1	7	7	9	6
Whooping Cough	128	123	85	135	245
Diphtheria	48	89	49	16	46
Influenza	49	259	412	72	330
Pneumonia	78	122	139	59	132
Mumps	238	272	209	552	270
Meningitis	1	9	3	5	4
Trachoma	1	26	0	2	2
Rubella	313	158	0	0	0

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for general price list.

Chemists to the Medical Profession. 1.—7-41

THE ZEMMER COMPANY

ZEMMER

Oakland Station, Pittsburgh, Pa.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 AUGUST, 1941 NUMBER 8

INFANTILE DIARRHEA

E. H. CARLETON, M.D.
EAST CHICAGO

HUBERT J. RYAN, M.D.
GARY

Physicians who have been practicing more than ten years are only too familiar with the diarrheas of infants and children—those severe diarrheas which have been known by the various names of summer complaint, cholera infantum, etc. In these cases the children developed severe diarrhea with loose, frequent, watery stools and sometimes considerable blood and mucus. Vomiting occurred in a great many cases and fluids were very often refused; in such instances, the child quickly became dehydrated.

The outstanding characteristic of infantile diarrhea seems to be the rapidity with which the child deteriorates. A patient seen one day with what appears to be a mild diarrhea may be almost at death's door in twenty-four hours unless a very close watch is kept. The eyes will be sunken, the skin will be dry, and there will be almost constant watery bowel movements, usually accompanied by blood and mucus. The child may lose as much as one to four pounds in twenty-four hours.

The etiology of this disease never has been satisfactorily accounted for. Various theories have been offered such as contamination of food, water, or milk, fly transmission, parenteral infection, usually upper respiratory. No one theory has been sustained. Stool cultures have been negative; infants reared under the most aseptic conditions as far as food, water, and milk were concerned, have developed diarrhea. A number of cases had upper respiratory infection, but others did not. In short, no definite etiological factor has been established.

Those of us who more than ten years ago worked in children's hospitals where the children were given prompt treatment including parenteral fluids, blood, etc., certainly would not boast about the results obtained. Two things did seem evident:

(1) That in children who were not badly dehydrated and who were given sufficient transfusions and parenteral fluids, the results were fairly good; and that if the patient could be prevented from becoming dehydrated, recovery usually occurred.

(2) That in those children who were badly dehydrated it seemed a hit and miss affair as to whether or not they recovered—some improved after treatment, but the majority did not. In the cases which did not recover, the body seemed to be unable to assimilate the fluids which were given parenterally.

In our section of the country there has been none of this type of diarrhea during the past ten years until this spring. The reason for this is not known, and anyone's guess is as good as another's. Possibly it is due to better medical education on the part of the laity that doctors are called more promptly and thus are able to abort some of these severe types. However, this spring, since about May fifteenth, we have seen a considerable number of cases which appear to be like the old severe type. We have had one death and, as a result, a warning was issued to all physicians in Lake County in the hope that they would treat all cases of diarrhea with care. Since then we have been watching these cases closely and have given rather vigorous treatment.

Without exception, our patients have had either a severe or a mild upper respiratory infection, usually a pharyngitis. These patients have been given sulfathiazole, as much as two grains per pound of body weight, every twenty-four hours, for as long as two days, and all have recovered. However, if and when the child refused to drink or was unable to retain fluids, the patient was promptly hospitalized and given fluids and blood parenterally.

In the case of the child who died, the death was believed to be due primarily to the fact that the patient became dehydrated. Autopsy showed the liver, kidneys, and spleen to be very pale, and there was evidence of a severe, overwhelming infection. There was a fibrosis of the submucosa of the large bowel with moderate infiltration, and the bowel wall was moderately congested. There was an indication of a marked toxemia in histological sections. In other words, not expecting a severe diarrhea, this six-months-old child was left at home, was seen a second time after twenty-four hours, and during this interval had become dehydrated. Fluids and blood were then given intravenously and subcutaneously, but the body could not and did not use them, and the patient expired in eighteen hours.

If prompt attention is given to these diarrheas, upper respiratory infections treated when present, and fluids given parenterally if the child shows any signs of dehydration or inability to retain fluids, the results will be good in most cases. The prevention of dehydration is the important point.

Realizing that it is impossible for all children to be hospitalized and given fluids, we believe that Dr. Carleton's experience in treating these cases at home will be of interest. Please note that while we in this section have not encountered these diarrheas in the past ten years, Dr. Carleton's experience shows that they have been more or less endemic in other areas.

REPORT OF ENDEMIC DIARRHEA IN KENTUCKY

From May, 1939, to September, 1939, a total of 483 cases of diarrhea and enteritis were reported from a small community in southeastern Kentucky. This form of diarrhea has been more or less endemic for many years in the rural districts of Kentucky, Tennessee, and West Virginia. Because of the high incidence of the disease and its high mortality among infants, it was decided to study the problem in an attempt to disclose the etiology, if any, and to seek some means of treating the disease which would be practical in the hands of physicians serving a scattered rural population.

Appropriate clinical, bacteriological and epidemiological studies were made on 142 cases in collaboration with the Kentucky State Department of Health and the U. S. Public Health Service.

It is not the purpose of this article to report the detailed results of this investigation, but merely to give some of the high points of the clinical findings in the hope that such information may be helpful. A complete report of the Kentucky investigation with observations gathered since 1939 is to be presented in a paper in the future.

The outstanding symptoms recorded as percentage of total patients showing symptoms is as follows:

Diarrhea, 100% (Watery 75.8%, Bloody 21.8%, Mucous 13.8%)
Thirst, 79.3%
Tenesmus, 74%
Flatulence, 67%
Cramps, 58.6%
Anorexia, 46%
Recorded Temperature, 44.8% (above normal)
Subjective Temperature, 42.5% (above normal)
Nausea, 40.2%
Prostration, 40.2%
In bed, 39.1%
Vomiting, 36.8%
Dehydration, 29.9%
Weakness, 28.7%

Laboratory examination of stools revealed 2.3% flagellated Protozoa, 16.3% Ascaris lumbricoides and *no dysentery* organisms. Study of the attack rate by age revealed that children under 5 years were attacked five times as frequently as those over 5 years of age. The average duration of illness was 3.7 days, the shortest time being 1 day and the longest 3 weeks. Fatalities ran to 2.3%. The rate probably was much higher as many cases were known to have perished in the inaccessible regions and were summarily buried without being reported. Generally speaking, the homes having the most unsanitary and crowded living conditions had the highest incidence of the disease.

The absence of positive bacteriological findings prevented a clear-cut and rational form of treatment. It was decided to observe the disease closely while the clinical study was in progress in an attempt to pick up some indication of the treatment needed. Especial attention was given to the diet of the victims of the disease before, during, and after the period that the victim was ill. The suggestions offered by natives as to the cause and cure of the condition were treated with tolerance.

Close observation of the disease brought the following conclusions:

1. The disease was characterized by diarrhea, cramps, nausea, dehydration, and prostration.
2. Where diarrhea was the main symptom, dehydration and prostration were not profound because fluids, proteins, and carbohydrates could be tolerated and the body needs satisfied.
3. When nausea and vomiting accompanied the diarrhea, especially bloody diarrhea, dehydration and prostration became severe because fluids, etc., could not be tolerated by the stomach. In small children, when this cycle became established, death was frequently the end result.
4. Strong alkaline stools were frequently encountered, strong enough in many cases to severely excoriate the skin of the buttocks and legs.
5. The site of tenesmus and cramps was obviously in some part of the large bowel.
6. Diarrhea, tenesmus, and cramps frequently occurred in the absence of nausea.
7. After a few hours of mild diarrhea and tenesmus, nausea and vomiting frequently started.
8. Nausea was temporarily relieved by emptying the lower bowel.

The impression gained from the foregoing observations was that the site of the disease was in the lower bowel in a part that could by sufficient irritation cause reflex nausea and vomiting as well as initial diarrhea, tenesmus, and cramps.

Because of primitive conditions in the homes, the use of intravenous and subcutaneous fluids was not practical. Nausea and vomiting too often prevented the retention of fluids and nourishment by mouth. Alkaline cathartics aggravated the symptoms when such cathartics were successfully retained. Castor oil in some cases seemed to be helpful when it could be retained. Paregoric and salol-bismuth mixtures were sometimes effective if they could be retained.

It followed that treatment in the most serious cases was prevented by inability of the patient to retain medicine and food by mouth and by our inability to give fluids by vein or subcutaneously. It was decided to attack directly the apparent site of the disease in the lower bowel. Low pressure, high colonic irrigations were used.

Colonic irrigations of plain tap water (rather strongly chlorinated at its source) gave temporary relief followed by an increase in the diarrhea. One teaspoon of sodium bicarbonate in one pint of water (approximately 0.6% sol.) aggravated the diarrhea, frequently converting watery or mucous diarrhea into bloody diarrhea.

Colonic irrigation with a mildly acid solution produced startling results. One to three teaspoons of ordinary household vinegar to one pint of water (vinegar was used because it was a standard household supply and was always available) was tried. In most cases this irrigation caused cessation of nausea even before the irrigation was completed. Likewise, cramps stopped and a feeling of warmth and comfort was produced in the lower bowel. In most cases with mild symptoms the diarrhea ceased permanently and the next stool would not be passed until four to eight hours later.

There were, of course, variations in the response to the vinegar solution irrigation; the more severe and longstanding diarrheas, especially if bloody, required several irrigations to stop completely the diarrhea and produce normal stools. Even in the severe cases, blood disappeared from the stools after the first or second irrigation.

With nausea and vomiting stopped, it was possible to start replacement of fluids and nourishment. Observation of these cases revealed that, as the native population had insisted, there were some foods which were helpful and some which were definitely harmful to the patient having this complaint. There were no consistent observations made that justified the belief that any one food was responsible as a cause of the diarrhea except, of course, the possibility of contaminated food acting as a source of some etiological agent such as a toxin or undiscovered bacteria.

By actual trial some foods were consistent enough in their effect upon the course of the disease to merit classification as harmful or helpful irrespective of their acid or alkali ash production.

Harmful Foods: Cereals and cereal products such as bread, etc., sugar, fats, starches, fruits (excepting scraped raw apples and tomatoes), milk (sweet or condensed), green vegetables (raw or cooked), alcohol.

Helpful Foods: Tea, dried salted beef, brine preserved foods (excepting pork), buttermilk, lactic acid milk, well salted tomato juice, well salted broiled beef (especially lean beef), well done, crisp bacon, well boiled skim-milk (in some cases of infants not tolerating buttermilk or lactic acid milk).

ABSTRACT: "OLD AGE" AND "SENILE DEMENTIA" NOT SYNONYMOUS

The mental disorders of the aged are as amenable to treatment as those of younger patients, G. Wilse Robinson Jr., M.D., Kansas City, Mo., declares in *The Journal of the American Medical Association* for May 10.

"Geriatrics," he says, "is the science of the treatment of diseases of old age. In the days of straight pathologic interpretation, this branch of medicine was neglected almost entirely because of the belief that arteriosclerosis and senile atrophy were the sole and only causes of the presented symptoms.

"Senile organic changes are both progressive and irreversible. If the changes were causing the symptoms, the only thing for the physician to do would be to control the symptoms, and the only objective of society would be to provide care and custody for those whose mental faculties have been disturbed or destroyed by these pathologic developments. These concepts have led to a pessimistic outlook, by both physicians and laymen, and to a disinterest in geriatrics as a constructive branch of therapeutics.

"The most distressing developments of old age are the mental symptoms. If the mental symptoms are interpreted as straight pathologic developments they are all hopeless, and every person over 60 who acquires mental symptoms should be confined immediately to an institution and considered to be in need of custody and protection the rest of his life.

"In recent years study and observation of these conditions have shown that a straight pathologic interpretation in these cases should not be made. The classic statement 'A man is as old as his arteries' is, of course, still true, but 'old age' and 'senile dementia' are not synonymous. . . .

"The mental states of persons over 60 who present symptoms of an abnormal mental state must be analyzed in terms of total psychiatry rather than of pathology alone.

"A series of cases at the Neurological Hospital confirms this concept. Three years ago my associates and I began to study this problem constructively and treat patients with these disorders intensively by every known means. We decided that every patient was entitled to a chance and that a hopeless prognosis would not be given until every possible therapeutic aid and measure had been exhausted. Since then we have studied and treated 50 patients over 60 years of age. . . .

"Thirty-five patients, or 70 per cent. of our total series recovered sufficiently to return home. . . . Of the 36 patients who had conditions that should be expected to respond to active psychiatric therapy 25, or 69.4 per cent, recovered completely while 8, or 22.3 per cent, had a remission of sufficient quality to enable them to go home. This gives a percentage of 91.6 of the group with a reversible type of psychosis who were able to return home and take care of themselves rather than be confined in an 'institution' for the rest of their lives. These figures certainly do not bear out the usual hopeless prognosis held for patients with mental disorders over 60. . . .

"Twenty-four patients of the 33 with syndromes having a good prognosis who made a social remission or better have been home six months or more. . . ."

NEUROPSYCHIATRIC EXAMINATIONS IN SELECTIVE SERVICE

EARL W. MERICLE, CAPTAIN, M. C.
FORT BENJAMIN HARRISON, INDIANA

This report is offered in order to convey to the doctors of Indiana the conduct of the neuropsychiatric examination and the findings in 4,372 Selective Service men. The writer does not consider the plan of examination as the acme of its type but merely submits it for its own worth. Comment and criticism will be appreciated and are expected. However, this plan has proved to be the most valuable tried at this station in which a neuropsychiatric staff, consisting of one full-time and one half-time physician, is called upon to examine as many as three hundred men per day.

The plan of examination of selectees at Fort Benjamin Harrison is probably similar to that used in most induction stations. Each man carries a work sheet to which is fastened the record as completed by the local board examiner. An examination is completed on every man even though he may be rejected in one of the earlier phases of the physical check-up. First, the selectee has weight and height determinations, then he proceeds from this station to the other stations, which are Heart and Lung, Genito-Urinary and Hernia, Urinalysis, Teeth, Ear, Nose and Throat, Orthopedics, Eye, and Neuropsychiatry, in the order named.

The neuropsychiatric examination really begins when the selectee starts his physical examination. Any neurological abnormality or behavior peculiarity observed by any of the commissioned or contract physicians is written on the work sheet in order to call any such finding to the attention of the neuropsychiatrist.

In the examination of chest and heart, frequently the first evidence of neurocirculatory asthenia (effort syndrome) is discovered. In this station the selectees are asked if they have ever suffered unconsciousness, St. Vitus' dance, syphilis, or convulsions. During the genito-urinary examination the men are again questioned as to lues. Incidentally, three unstable individuals fainted when the inguinal rings were palpated for hernia. Hutchinsonian teeth and lead line of the gums may be noted in the dental examination. The otorhinolaryngologist detects deafness of neurogenic origin and abnormal movements of the tongue and palate. Often attempted malingering is first discovered in the otorhinolaryngological examination. The orthopedist has on many occasions found defects produced by mild poliomyelitis, Little's disease, spina bifida, and disease or trauma of the peripheral nerves. Nystagmus, unequal pupils, diplopia, extraocular paresis and fundus pathology are often first observed in the routine eye examination.

On arriving at the neuropsychiatric station, the selectee completes the small questionnaire which is as follows:

ANSWER BY YES OR NO

	Answer Below
A. Have you ever had:	
(1) Nervousness, Nervous breakdown, Mental disease	
(2) Unconsciousness, Concussion, Skull Fracture	
(3) Fainting spells	
(4) Sleep walking	
(5) Bed wetting	
(6) Fits, Convulsions, Epilepsy	
(7) Paralysis, Spinal cord injury	
(8) Nerve injury	
B. How old were you when you quit school	
(1) How many grades had you completed	
C. Have you ever been arrested	
(1) Do people treat you right	
D. Do you take medicine every day	
E. How many jobs have you had in the last two years	
F. Have you ever been married	
G. Do you drink intoxicating liquor	
H. Will your health prevent your serving in the Army	

This questionnaire is a valuable time saver. It is not intended to be a complete psychiatric study, but it does give considerable information which the selectee records without any aid. This provides, also, for some permanent record of each man. By the use of this type of history-taking, an attempt is made to uncover any history of central nervous system disease or trauma, clinical or subclinical psychoses. The selectee's education, work and social records are very briefly obtained. The question regarding marriage is added to complete the brief social record and to determine if the individual has dependents toward whom he feels a necessity to contribute a part of his salary. The last question permits any selectee to discuss his health with the examiner.

The neurological examination begins with a general inspection. Gait and station are observed. Abnormal tremors are noted in the tongue and in the extended upper extremities with the fingers widely spread. By watching the selectee write, a fair evaluation of his coordination is possible. Pupillary reactions and extraocular movements are studied. Leg and arm reflexes are tested.

After the above examination, the selectee is interviewed privately, if necessary. All the above information is on the work sheet and the examiner can evaluate and very quickly utilize it in this interview. In case the line is moving rapidly, any man with a neuropsychiatric abnormality is held until time permits a more complete observation.

Following the neuropsychiatric examination, the man reports to the chief medical examiner where all the physical findings are summarized and the man is accepted, rejected, or held for further study.

In a study of 4,372 Selective Service men examined during the month of April, 1941, the neuro-

psychiatric rejections were classified as follows in this table:

Type I	15
Type II	27
Type III	1
Type IV	57
Type V	6
Drug addiction (also barbital habitue)	1
Speech defect too severe for military service	3
Epilepsy	2
Migraine	1
Fröhlich's—severe	2
Madelung's disease	1
Enuresis (severe)	12
Basal ganglia disease	16
Post-traumatic cerebral syndrome	15
Unclassified tremor too severe for military service	2
Cervical rib (with pulse deficit with arm raised)	1
Post-sunstroke with central nervous system instability	1
Spina bifida (with sensory loss)	2
Neurological diseases, including central nervous system lues	14
Peripheral nerve injury or disease	3
	182

This table requires some explanation. Type I is the mental defective or deficient group. These rejections were based on school, social, and work records, and tests used in this station. Type II is the psychopathic personality group and includes those whose intellect is average but who are incapable of adjustment. They do not profit by experience and rarely ever accomplish a definite plan or achieve a goal. They are not dependable and react poorly to any program that requires concerted effort or regimentation. Type III is the mood swing disorders in which episodes of elation and depression occur without obvious connection with events. One man of this type was rejected because his elated state was so exaggerated that he believed and freely admitted that he was the best selectee of the state and he was willing to enter any contest, mental or physical, to prove it. The slightest stimulus diverted his attention and psychomotor activity was pronounced. The group contributing the greatest number of rejections was Type IV, the psychoneuroses. Of this group, the majority suffered from anxiety neuroses, a few were of the conversion hysteria type, and the remainder were of the obscessive-compulsive or psychasthenic group. Psychosomatic disorders were rather common in all of these selectees and consisted chiefly of thoracic and abdominal visceral complaints. Some skin reactions were noted, and two selectees developed a marked urticaria during the examination.

One interesting finding was the pulse rate which was above 120 in 166 men. Of this group, the internist rejected 5 men because of effort syndrome; 10 men were rejected as Type IV (psychoneurosis, anxiety type); 23 were rejected by the internist because of an accompanying hypertension or organic heart disease, and 103 men were accepted when re-examined twenty-four hours later. Type V comprises the schizoid or dementia praecox group in which there is a splitting of affect and intellect. Of this group four had been patients in a state mental hospital.

The one drug addict had stopped the use of narcotics but had substituted a barbital derivative, and during the examination he was under the influence of nine grains of sodium pentobarbital. In two men there were speech defects so severe that the selectee could not express himself or repeat commands. The epilepsies were verified by scars, and by telephone communication with physicians. Complete impotence, infantile genitalia, and marked adiposity characterized the severe Fröhlich's disease rejections. The selectee with Madelung's disease had a rather marked generalized lipomatosis. In most enuresis (severe) cases the men were held over and checked the second day. These selectees had enuresis at least once per week, and most of them were nightly in frequency. Basal ganglia disease cases were, in the main, early cases of Parkinson-like disease following encephalitis. Post-traumatic cerebral syndrome rejections were due to marked hyper-irritability or some other central nervous condition, such as diplopia, recurrent headaches, or dizziness following a head injury. The unclassified tremors were those which had been present since birth. The selectee with a cervical rib had a marked prominence in the lateral aspect of the neck, and circulation was absent in the radial artery when the arm was raised. The selectee with the post-sunstroke syndrome was rejected because of central nervous system instability to heat changes. The men with spina bifida were rejected because of the fact that evidence of nerve disease was present, and a belt rubbing over the lesion might also produce an inflammatory reaction. Neurological diseases, including central nervous system lues, comprised one lead poisoning case, some early multiple sclerosis cases, and other neurological conditions. The peripheral nerve lesions were chiefly due to injury. One case was an Erb's paralysis.

In the study of these men, many interesting facts were brought out. In some cases, these facts were cause for rejection, but in the main they contributed to the general evaluation of the selectee.

Rejected due to other reasons and having neuropsychiatric defect	26
Nervousness	361
Unconsciousness of traumatic etiology	188
Epilepsy coincidental with other findings	15
Chronic alcoholism in conjunction with other findings	6
Previous state mental hospital patient	4
Extraocular abnormality with diplopia	7
Extraocular abnormality anomaly (unable to move eyes more than five degrees in any direction)	1
Unequal pupils (not central nervous system lesion)	12
Nystagmus (not neurological)	8
Absent reflexes	25
Enuresis not severe enough to justify rejection	44
Positive Romberg	3
Deafness in one or both ears (conductive or nerve)	8
Sensory loss due to peripheral nerve lesion	5
Fainting spells	105
Nervous breakdown	10
Speech defect not severe enough to justify rejection	12

Two outstanding facts are indicated here. First is the fact that 361 men claimed nervousness as a difficulty. This term, however, was generally used to indicate reaction, such as apprehension or restlessness, to a situation, but in many cases was used in reference to visceral difficulty. The second outstanding fact is that 188 men have suffered, at one time or another, an unconsciousness of traumatic etiology; fully 60% of these cases resulted from automobile accidents.

Three hundred ninety-one men had been married at some time; of these, approximately 50% were separated or divorced, and of these, 20% had children. Approximately 40% of the total married were marriages of one year or less; the remaining approximate 10% were marriages of one and one-half years or longer and in which the selectee had no absolute dependents.

The figures on education revealed the following:

Illiterate and less than four grades	33
More than four grades and less than four years high school	2,232
High school graduates	1,657
One year college	140
Two years college	113
Three years college	48
Four years college or more	149
	4,372

The facts learned about the number of men who have, at some time or other, been arrested are:

Drunkenness	116
"Stealing"	22
Traffic violations	195
Assault and battery	2
Accused of rape	2
Illegal disposal of liquor	2
Non-support of juvenile dependents	11
Forgery	2
Petit larceny	14
Grand larceny	2
Involuntary manslaughter	1
Voluntary manslaughter	1
Felony (unclassified)	1
Miscellaneous, including vagrancy, trespass, rioting, etc.	112

This report of the neuropsychiatric examinations, rejections, and symptoms is offered because it may be of considerable interest to the physicians of Indiana who are contributing their time in local board examinations. That a high grade of work has been done in the various local boards is evidenced by the fact that rejection figures are about the same at Fort Harrison as in the other induction stations of the Fifth Corps Area.

There is no disagreement in the attitude of the local board physicians and the personnel of the induction stations, both commissioned and contract. All are doing their work, and the attitude is best expressed in paragraph No. 8, Circular Letter No. 19, Surgeon General's Office, dated March 12, 1941, which states: "The Army is one of the elements of national defense and its present mission is one of preparation for an offensive-defensive type of warfare. It is in no sense a social service or curative agency. It is to be considered neither a haven of rest for the wanderer or shiftless nor a corrective school for the misfits, the ne'er-do-wells, the feeble minded or the chronic offender. Furthermore, it is neither a gymnasium for the training and development of the undernourished or undeveloped, nor it is a psychiatric clinic for the proper adjustment to adulthood emotional development. Therefore, there is no place within the Army for the physical or mental weakling, the potential or prepsychotic, or the behavior problem. If an individual is a behavior problem in the civilian community, he will certainly become a more intensified problem in the service."

The rejections made at this station have been decided upon after due consideration, with regard for fairness and, in general, with an effort to maintain the standards of personnel for the good of the service. The purpose of this induction is to obtain men who can be trained to become effective soldiers and not just to obtain men. The longer one is associated with military service, the more he learns to respect the intelligence required to become an efficient soldier.

Appreciation is expressed by the writer to Captain J. W. Ulery, Commanding, and Captain Clyde W. Everett, Chief Medical Examiner, for their help in this work.

ABSTRACT: EPIDEMIC INFLUENZA TREATMENT STILL CONCERNS SYMPTOMS, NOT CAUSES

Modern treatment of epidemic influenza must still concern itself with symptoms rather than causes, *The Journal of the American Medical Association* for Jan. 18 declares in answer to an inquiry.

"There is no specific treatment for true epidemic influenza," *The Journal* says. "Modern therapy is of necessity still symptomatic. It places a special emphasis on two points; rest in bed and good nursing care. The patient should be put to bed as early as possible after onset of the disease and kept there until convalescence is well established. The object of good nursing is to promote the comfort of the patient and to preserve his strength. The diet during the acute stage should be liquid, should be given at frequent intervals and should not exceed 3,000 cubic centimeters per day. A small enema on the second or third day is preferred to purgation by cathartics. Headache and body pains are combated by judicious and restricted use of analgesics and sedatives, among which salicylates and codeine are probably most useful. The irritating cough is treated by keeping the air of the sick room moist, by inhalation of compound tincture of benzoin in steam and by expectorant and sedative drugs.

"It has been established that Haemophilus influenzae is not the cause of the disease but that a virus and probably at least two strains cause epidemic influenza."

THE INFLUENCE OF CULTURE MEDIA ON THE ANTIGENIC PROPERTIES OF HEMOPHILUS PERTUSSIS*

H. M. POWELL, Sc.D.
W. A. JAMIESON, A.B.
INDIANAPOLIS

Comparable tests have been made of pertussis vaccines prepared from the same Phase I strains† grown in the usual way for ten transfers on twenty-five per cent human blood Bordet agar, then for five transfers, respectively, on agars containing the same percentages of beef, sheep, rabbit and human blood. At this time all the cultures had been cultivated in the laboratory for about one month. All the vaccines comprised 48-hour growths removed from the various blood agars and adjusted to 10,000 million organisms per cc. These vaccines were then examined for complement fixing, agglutinating, and mouse immunizing properties. Each group of tests was conducted concurrently to assure strictly comparable results.

Minimal specific complement fixing units per cc. of these vaccines as determined by a technique already described[1] were: vaccine from beef blood agar, 100 units; sheep, 60 to 80 units; rabbit, 80 units; vaccine from the human blood agar in this instance could not be measured because of anticomplementary action, although more than fifty other batches of similar vaccine in a previous study dealing with the development of complement fixing antibody after vaccination have been found to be effective complement fixing antigens, showing up to 100 minimal complement fixing units per cc.

Agglutinating action of these four vaccines and antipertussis horse serum already described[1] was found to be either 2+ or 4+ at a titer of 1-5120, and on the day of this test live culture from the human blood agar gave a 3+ reading at the same titer.

White mice in groups of 60 were injected hypodermically with a total of 1.25 cc. in four divided doses of each vaccine. Two weeks after the last dose the four immunized groups and a normal control group of mice were tested with live pertussis culture diluted decimally in a fluid composed of 2.5% starch and 2.5% mucin in Bordet medium without agar. Vaccines made from beef, rabbit, and human blood agars produced statistically significant and substantial immunity—i.e., to about 10 L.D. 50 of culture—in mice. Intercurrent deaths and poor condition of several mice in the sheep blood agar vaccine group made further tests necessary. Further vaccine prepared subsequently from sheep blood agar was found to incite essentially the same degree of active immunity in mice as vaccine prepared on the other three blood agars. (See Table 1.)

TABLE 1

ACTION OF PERTUSSIS VACCINES PREPARED FROM CULTURES GROWN ON DIFFERENT BLOOD AGARS

Pertussis culture medium used in vaccine preparation	*Number minimal complement fixing units per cc. of vaccine*	*Agglutination readings at approximate maximum titer of 1-5120*	*Immunity test of 60 mice on each vaccine showing L D 50*
beef blood agar	100	++	10 -2.635(±0.240)
sheep blood agar	60	++++	-3.391(±0.365) 10(12 intercurrent deaths)
rabbit blood agar	80	++++	10 -2.224(±0.558)
human blood agar	anticomplementary	++	10 -2.897(±0.169)
no vaccine controls			10 -3.710(±0.209)
sheep blood agar second lot	80	+++	10 -2.463(±0.444)
no vaccine controls			10 -3.514(±0.196)

Conclusion: Fresh strains of Phase I pertussis bacilli cultured for a month on beef, sheep, rabbit, or human blood Bordet agars provide vaccines of closely comparable complement fixing, agglutinating and mouse immunizing activity.

* From the Lilly Research Laboratories, Indianapolis. Reported in part before the American Association of Immunologists at Chicago, April 16, 1941.

† Four Hemophilus pertussis cultures obtained through the kindness of L. W. Sauer, M.D.

[1] Powell, H. M., and Jamieson, W. A. Laboratory assay of Pertussis Undenatured Bacterial Antigen. *Jour. Immunol.* 1939, **36**, 361-364.

POSTENCEPHALITIC TIC OF DIAPHRAGM*

PHRENICECTOMY, BILATERAL, COMPLETE ON LEFT, INCOMPLETE ON RIGHT, THE LATTER REQUIRING FOR PERMANENT RELIEF TRANSTHORACIC APPROACH, WITH A NEW TECHNIC FOR EXPOSURE OF MEDIASTINUM

PENN-GASKELL SKILLERN, M.D.
SOUTH BEND

This is the final account of the case whose preliminary report[1] was published in 1931, and includes a review of the sparse literature to date. Up to April, 1928, when I first saw the patient, but two similar cases were found in the literature, and in both the phrenic nerves were merely resected, with, of course, eventual return of the tic. With these sole precedents, the author first resected both phrenics, but recurrence (after nine months) prompted total ablation of the nerves. This was successfully performed on the left side, but during elevation of the right nerve the thinly regenerated cord tore at the superior aperture, allowing the proximal end of the thoracic segment to retract from view: the cervical segment, however, was removed at the C III, IV, and V. This was the situation at the time of the preliminary report.

After a lapse of six years—during the economic depression—the patient reported the return of the spasms nine months after the latest operation. The fluoroscope now revealed—as it was anticipated—spasms of the right half of the diaphragm, but stillness of the left. Three further removals of the repeatedly regenerated right cervical segment were made, but always eventuated in return of the spasms nine months later. Thus, the cervical segment of the right phrenic nerve was divided or removed five times and regenerated every time in close to nine months, thus establishing the facts that as long as the thoracic segment of the phrenic nerve remains *in situ*, resection of the cervical segment will be followed by regeneration in about nine months, and that given a case of postencephalitic tic of the diaphragm, primary total ablation of both phrenic nerves is a *sine qua non* for permanent cure. Here is the story.

Mrs. E. J., white, aged 37, a housewife, consulted the writer on April 15, 1928, obviously suffering from harrassed breathing. Four years previously she had been ill for several weeks, complaining of drowsiness followed by mental disturbances—especially lapses of memory—which lasted about eight months and then gradually disappeared. During the fourth week of the illness she had a sudden attack of tumultuous palpitation, after which the heart seemed to stop; the respirations became very slow and extremely difficult, and three weeks later there began attacks of rapid breathing, each lasting only a few minutes. At first these attacks occurred once a day, but for the past few years they had been almost continuous: the "respiration" had been about 200 (*cf.* moving picture film) a minute; this rapid breathing had caused severe exhaustion, although the patient was still able to do her housework. During the past year she had frequently fallen backward. She had been able to sleep only four hours each night. Oculogyric crises and spasms of the facial muscles and extremities occurred at intervals. She consulted a neurologist in a nearby metropolis who made the diagnosis of brain tumor with a life expectancy of two years. She had been discharged from a noted clinic with the diagnosis of hysteria.

On examination, attention was immediately directed to the chest as it underwent extremely rapid and shallow excursions at the rate of 200 a minute. It soon became apparent that normal respiration was held in abeyance and usurped by spasmodic jerkings of the diaphragm with occasional momentary pause for a deep inspiration, which constituted the entire clinical picture. The heart was not unduly accelerated, nor was the patient's color cyanotic. The blood and the urine were normal. The fluoroscope showed fluttering of both sides of the diaphragm.

A search of the literature at this time (1928) revealed two cases of this malady, of which both came to operation. A third case, however, was seen by H. Smith in 1923[2]: phrenic section had not been suggested at that time and his patient was not relieved. In the first case[3] (1925) both phrenic nerves were exposed and frozen with a spray of ethyl chloride. The respiratory rate fell during the operation from 96 to 20. The authors stated that this patient's relief was merely symptomatic and perhaps only temporary.

In the second case[4] (1927) the right phrenic nerve was exposed and merely divided, while the left phrenic nerve was frozen with a spray of ethyl chloride instead of being divided. Twenty-five days after operation the rapid breathing returned, averaging 90 (preoperatively 130) to the minute. Fluoroscopic examination showed that the left side of the diaphragm was contracting rapidly. About seven weeks after the first operation, the left phrenic nerve was exposed and divided, whereupon the respirations immediately became thoracic in type and the rate again descended to 20 a minute, just as after the first operation.

Here, then, in two spasm patients, four phrenic nerves were dealt with, the first two being merely frozen, while of the other two, one was merely

* Read by invitation before the Philadelphia Neurological Society, October 25, 1940.

[1] Skillern, P. G.: *J.A.M.A.*, June 20, 1931, **96**, pp. 2098 and 2099.

[2] Smith, R.: Diaphragmatic Tic Relieved by Section of Phrenic Nerve; 2 Cases, *Am J. M. Sc.*, **183**: 837-840, (June) 1932.

[3] Gamble, C. J.; Pepper, O. H. P., and Muller, G. P.: Post-encephalitic Tic of the Diaphragm, *J.A.M.A.*, **85**: 1485 (Nov. 7) 1925.

[4] Dowman, C. F.: Relief of Diaphragmatic Tic, Following Encephalitis, by Section of Phrenic Nerves, *J.A.M.A.*, **88**: 95 (Jan. 8) 1927.

divided and the other was frozen, although the latter was divided about seven weeks after the first operation on account of recurrence of the rapid breathing twenty-five days after that operation.

In deciding upon the operative procedure to be employed in the author's case it was felt that one should be chosen which would offer more permanent results than mere freezing, or mere division, both being indicated rather for the relief of intractable hiccup.[5] There was no precedent for avulsion (exeresis) in this condition, although it had been employed unilaterally in the collapse therapy of pulmonary tuberculosis. It was therefore decided to steer a middle course between these two extremes.

First operation—On June 1, 1928, under ethylene anesthesia, both phrenic nerves were exposed and 2 cm. was resected from each. Division of one phrenic nerve had no effect on the respiratory rate, but as soon as its colleague was divided the rate dropped to 38 a minute, the diaphragm became still, and the now unshackled chest resumed its bellows-like rise and fall. Four hours after operation the respiratory rate fell to 20 a minute, and this rate held at the time of the patient's discharge from hospital. The attacks of syncope disappeared.

In April, 1929, the patient visited my office and stated that the rapid breathing had returned in March, about nine months after the operation, and that with its return the attacks of syncope had recurred. (It is thought that the regeneration of nerves occurs at the rate of about 1 mm. a day.) The respiratory rate at this time was 90 a minute. The fluoroscope revealed that the left side of the diaphragm was contracting spastically as before operation; the right side, however, was still.

A third case[6] now appeared in the literature in which on the right side about 10 cm. of the distal segment was avulsed, while on the left side the nerve was divided only. Eighteen months after operation, the patient could breathe comfortably and was able to do light work.

Second operation (January 2, 1930)—The spasms were now at the rate of 150 a minute. The left phrenic nerve was exposed and found regenerated, although its diameter was much less than that of the normal nerve. It was divided near the middle of its cervical portion, whereupon the respiratory rate immediately fell to 36 a minute. The distal portion of the nerve was avulsed by curling it up with a hemostat: when uncurled and removed from the hemostat, it measured 30 cm., although the nerve was stretched, and several of its branches of distribution to the diaphragm were recognizable. Soon after operation the patient's respirations fell to 24 a minute, then to 20, and at the time of discharge they were 18. At first she complained of pain in the chest along the course of the avulsed nerve, but this soon disappeared.

Six weeks after the second operation the patient noticed the beginning of an increase in the respiratory rate, from 20 at first to 25 a minute, gradually increasing until, in December, 1930, it had reached 100 or more. There was a concomitant return of the attacks of syncope and of falling backward. This story makes it obvious that, at the time the left phrenic nerve was ablated, the right had regenerated almost to the point of conduction of impulses, although then there was no way of determining this. The situation was explained to the patient, who was promised permanent relief after ablation of the right phrenic nerve.

Third operation (January 29, 1931)—On exposure of the anterior surface of the right scalenus anticus muscle there was found, occupying the position and course of the wanted nerve, only that which resembled a coarse, white hair. This was drawn cephalad in an attempt to expose the thoracic portion of the nerve for the purpose of avulsion, but it was so weak that it broke under the tension of pulling. However, it was possible to trace it upward to the cervical plexus, where it was divided and removed. The patient came out of the ethylene with a respiratory rate of from 20 to 24. One week later, when leaving the hospital, she said that she felt better than at any time since the onset of the malady seven years previously.

There was now a lapse of six years which was due to the economic depression. The patient stated that nine months after the third operation in 1931, there was a return of the spasms of the diaphragm.

In the meantime (in 1932) H. Smith[2] reported two cases of spasm of the diaphragm, of which one was due to epidemic encephalitis, while the other was associated with recurrent intestinal obstruction. In the latter case the tic at first involved the right side of the diaphragm and occurred at the rate of from 90 to 110 spasms a minute. The right phrenic nerve was exposed and frozen for one inch with ethyl chloride: the tic stopped abruptly, and the respirations became normally thoracic at 22 a minute. It having thus been proved that the attack involved only the right side of the diaphragm, the nerve was then divided, and the free ends were dropped into the wound.

Five months later there began a sudden spasm of the left diaphragm at the rate of 140 a minute. The left phrenic nerve was exposed and frozen, whereupon the tic stopped, but reappeared in 48 hours at the rate of 100 to 110 a minute. One week later 5 cm. of the left phrenic nerve was removed.

The right phrenic nerve regenerated seven months after section. Twenty months later (December 19, 1929) the tic reappeared and the fluoroscope showed that the right side was involved, the left still paralyzed. On December 23, 1929, the right phrenic nerve was exposed, requiring some little search because of scar tissue and the fact that it was smaller than originally. The right nerve was then avulsed with prompt control of the tic. The patient suffered no respiratory distress during the time that she lived after both phrenics were resected. Several months later she developed an intractable diarrhea and died a few months after that.

Smith's second patient was a woman of 21 years of age who, six days after an attack of epidemic encephalitis, suddenly developed tic of the diaphragm at the rate of 120 a minute. The fluoroscope showed that the right diaphragm was more actively involved than the left. On January 5, 1929,

[5] Campbell, M. F.: Malignant Hiccup—Bilateral Phrenicectomy, *Am. J. Surg.* **48**, 449-455, (May) 1940.

[6] Speirs, G. O.: Encephalitic Spasm Treated by Phrenicectomy, *J. Nerv. and Ment. Dis.*, **69**:407, (April) 1929.

the right phrenic nerve was frozen to prove the control of the tic, cut in two and both ends dropped in the wound. Three months later the tic reappeared, though it now occurred only every three or four weeks and lasted a few hours. The fluoroscope showed the right diaphragm again functioning normally. Here the right phrenic nerve had regenerated within three months after section. At this observation definite psychic changes were noted and were regarded as the result of encephalitis four months before. Then infrequent attacks occurred only a few times and on each occasion seemed to be precipitated by some emotional flurry. For the past six months there have been no attacks.

The phrenic nerve regenerated in both cases after section, within seven months in the first case and three months in the second.

The inevitable diagnosis of hysteria had been made in the first case by several consultants before the condition was recognized. Wechsler[7] says "I would merely urge that one pause considerably before attaching a label of hysteria to an involuntary movement just because it follows a pattern."

In the same year (1932) a paper appeared with the caption "Division of Both Phrenic Nerves for Relief of Spasm of Diaphragm Following Encephalitis." (R. Greene.[8])

Going back to our own patient who reported after an absence of six years, the fluoroscope revealed that the right diaphragm was involved, the left being still.

Fourth operation (January 2, 1937)—The region of the right phrenic nerve was exposed and small strands of nerve tissue 2.5 cm. in length were removed, with immediate cessation of the spasms of the diaphragm.

Nine months after operation the spasms of the right diaphragm recurred.

Fifth operation (December 30, 1937)—The roots of the right phrenic nerve were divided at their origins from the III, IV, and V cervical nerves: the spasms ceased immediately.

Nine months later (September, 1938) the spasms of the right diaphragm recurred at the rate of from 80 to 150 a minute, and the patient wrote: "These have been the hardest months since I first began, and you would have to see these spasms and breathing really to know what it takes to just keep going."

Sixth operation (January 7, 1939)—The cervical portion of the right phrenic nerve was exposed. The regenerated portion of the nerve was so fine that it could not be seen. However, on scratching the anterior surface of the scalenus anticus muscle with the scalpel the spasms stopped immediately, the invisibly regenerated nerve evidently having been divided by this maneuver. Now an attempt was made to obliterate the bed occupied by the nerve by suturing the roughened adjacent surfaces of the scalenus anticus and the sternomastoid muscles together, and this was done by through-and-through sutures of heavy silk.

Whatever expectations were held as to the efficacy of this method were rudely dispelled by a letter from the patient under date of May 1, 1939, just four months after the operation, when she wrote, "Never before has the jerky diaphragm breathing returned so fast as it did this time within the last two weeks." Judging from this it might be a good plan to splint a divided nerve fairly firmly between two muscles in this manner, with the anticipation of more rapid regeneration.

Early in September, 1939, the patient wrote that she was ready and eager for another operation since she has been getting worse day after day.

In order to obtain a survey of the situation to date the following table was made up (Table 1). This shows that in the 7 cases of phrenic tic found in the literature in which operation was performed, 13 (Smith's second case was operated upon on the right side only) phrenic nerves were dealt with by multiple operations as follows: Frozen, 4; divided, 7; resected, 7; avulsed, 2. Regeneration followed all these methods except the last. Satisfied as far back as 1930 that permanent relief from the tic could be expected only after avulsion of both phrenic nerves down to the diaphragm, the writer undertook this procedure. First the left phrenic nerve was avulsed, its branches of distribution to the diaphragm showing plainly in the specimen removed: in the ensuing nine years regeneration did not occur. The next year (1931) an attempt was made to avulse the right phrenic nerve, but unfortunately the thinned regenerated cervical portion tore at the superior aperture of the thorax: it was this very accident, however, that lent so much interest to this case and also gained the patient's cooperation in willingly submitting to four additional operations before final and permanent relief was obtained. It was now impossible to find the proximal end of the distal segment of the nerve at the root of the neck, so three attempts were made to so obliterate the cervical segment of the right phrenic nerve that regeneration would not occur. At the first attempt (operation No. 4) 2.5 cm. of a mere thread of regenerated nerve was resected; at the second attempt (operation No. 5) 5 cm. of similar tissue was resected up to and including the roots from the third, fourth and fifth cervical nerves; at the third attempt (operation No. 6) no regenerated nerve could be found, but scratching with the scalpel over the anterior surface of the scalenus anticus muscle in the known position of the nerve resulted in immediate cessation of the spasms, and the roughened adjacent surfaces of the scalenus anticus and sternomastoid muscles were approximated with through-and-through sutures of stout silk in the hope that the resultant formation of scar tissue would prevent reunion of the nerve ends. The regular periodicity of reunion, however, (nine months except after the sixth operation, when it took four months) became monotonous both to patient and operator; it exemplified, however, the marvelous *vis medicatrix Naturae*, despite obstacles

[7] Wechsler: Clinical Neurology, Philadelphia, W. B. Saunders Co., 1927, p. 569.

[8] Greene, R.: Division of Both Phrenic Nerves for Relief of Spasm of Diaphragm Following Encephalitis, *South. M. J.*, 392-394, (April) 1932.

TABLE SHOWING HOW THE PHRENIC NERVES WERE DEALT WITH

Reference	*Frozen*		*Divided*		*Resected*		*Avulsed*		*Recurrence* *Days After*	*Recurrence* *Op. Rate*	*Reoperation (F, D, R, or A)*		*Drop in Resp. Rate*	*Comments*
	R	L	R	L	R	L	R	L			R	L	96 to 20	Author's stated relief merely symptomatic and perhaps only temporary.
1	+	+												
2		+	+						25	90		D	130 to 20 90 to 20	
3				+	10 cm.									Breathing comfortably 18 months after operation.
4 (Case 1)		+*	+			5 cm. (2nd op.)	+**		150R 210R	140R 100 to 110L	A	R	90 to 110 to LL	Lived several months after both phrenics were resected, then died of intractable diarrhea.
(Case 2)			+						90					3 months after operation definite psychic changes noted and regarded as result of encephalitis of 4 months before. **Left nerve not operated upon.**
5			+	+										
Author's					2 cm.	2 cm.			270L	90			200 to 20	
1st Op. (6/1/28)														Attacks of syncope disappeared after operation.
2nd Op. (1/2/30)								+	312R	100		A	150 to 20	Pain in chest along course of avulsed nerve, soon disappearing.
3rd Op. (1/29/31)					+				270R		R		100 to 20	
4th Op. (1/3/37)					2.5 cm.				270R		R			
5th Op. (12/30/37)					5 cm.				270R	80 to 150	R			Spasms of greater intensity than ever before.
6th Op. (1/7/39)									120R		D			Obliteration of bed of phrenic nerve.
7th Op. (9/28/39)											A		150 to 20	Final relief from spasms.

* 1st operation.
** 2nd operation.

put in her path. Perhaps because the phrenic nerve is concerned with so vital a function as respiration, it is so vigorous in its power of regeneration.

The only plan of permanent relief now available to the patient was obviously that of ablation of the thoracic segment of the right phrenic nerve through the chest, i.e., transthoracic phrenicectomy, an operation of which no previous record could be found, perhaps because it has never happened before that a phrenic nerve being avulsed through the neck to relieve chronic tic tore at the superior aperture of the thorax, which is the only indication for this operation. And regeneration always fell short of equalling the original diameter of the nerve, never exceeding that of a fine thread. This observation was also made by Smith in his first case, so that the tensile strength of the new nerve was practically *nil* as regards avulsion of the thoracic portion through the neck.

Heretofore complete phrenic avulsion had only been done in the therapy of pulmonary tuberculosis, and then only on one side. The cases of phrenic tic culled from the literature all were treated by freezing, division, or resection of the phrenic nerve, and all were reported before the ultimate result had been ascertained; doubtless, eventual regeneration was the lot of all. It used to be thought that division of both phrenic nerves was incompatible with life. My patient, however, waxed fat, so to speak, with both phrenics disconnected for five periods that averaged nine months each. We, therefore, were satisfied that absence of both phrenic nerves was not incompatible with life; on the other hand, their functioning was most detrimental to our tic patient. We would have performed transthoracic phrenicectomy sooner had we not been working in an untilled field as regards the permanent relief of phrenic tic, and had we not hoped that every new assault on the obstinate right phrenic nerve would result in permanent relief of the tic. The proposed operation was rehearsed on the cadaver.

Seventh operation (September 28, 1939)—Transthoracic phrenicectomy was performed on the right side as follows (cf. accompanying moving picture film). Ethylene anesthesia. A horseshoe incision was made with curve over midline of sternum, whence parallel limbs passed laterally cephalad to the upper border of the second costal cartilage and caudad to the lower border of the third, both terminating just lateral to the costochondral junctions. The soft parts were retracted laterally as far as the base of the flap. The chondrosternal trap-door, composed of the second and third costal cartilages with their attached segment of sternum, was mobilized by use of the Hudson bur and Hey saw and then freed from underlying tissues and swung outward on the costochondral junctions as hinges. The internal mammary vessels found in the field were ligated and divided. The pleura was now separated from the pericardium, exposing the phrenic nerve in relation with the vena cava superior and sweeping in front of the root of the lung downward to the diaphragm. In this maneuver the separation of the two membranes should be begun opposite the lower border of the first costal cartilage: the pleura here is very thin, but with an alert anesthetist no harm will result if it should be torn. The phrenic nerve was lifted by a blunt hook and freed to the diaphragm below, and to the lower border of the first rib above; here it was divided, its distal end was grasped in a hemostat and coiled around it until the branches of distribution were seen separating from the diaphragm. It is safer to divide the nerve opposite the lower border of the first rib than to free the upper end by downward traction, for the latter may have become adherent to regional blood-vessels in the previous operative field. The trap-door was now closed and secured by suturing the cut edges of deep fascia, intercostal muscles and endothoracic fascia and then approximating the cut edges of skin and subcutaneous fat, the latter layer being sealed tightly against air leakage. No drainage was employed.

The day after operation, the temperature was 98, respiration 18. The patient stated that she was enjoying "blessed relief" from the spasms.

There are advantages in beginning the resection of the chondrosternal flap at the midline of the sternum. First, the intercostal vessels and nerves are not damaged because they have already expended themselves; secondly, good exposure of the treacherous internal mammary vessels is obtained for ligation; and thirdly, lateralward mobilization of the pleura can be begun at its fold in the midline. This incision affords excellent exposure of the chest cavity and of the anterior mediastinum for access to an intrathoracic goitre.

After operation the patient naturally had some pain due to constant friction of the traumatized adjacent surfaces of the pleura and pericardium, but this discomfort disappeared in about ten days. The wound healed *per primam* throughout, the sternal flap united without deformity, and the cutaneous scar was movable over the subcutaneous tissues.

In her story, the patient writes, "Every year in the months of April and September (i.e., in the spring and fall) I had a recurrence of sleeping sickness which usually lasted about 16 days, and after each attack I was worse both mentally and physically.

"In April, 1934 I had a sleeping period lasting 14 days and at that time lost control of the lower limbs: it was almost impossible to walk, and I only walked with extreme pain and difficulty. It took me over a year to overcome the effects of this period of sleeping. During the sleeping interval I ran a high temperature.

"In April, 1939, I had a recurrence of sleeping sickness, and although I was able to be up and about part of the time, yet on sitting down I would fall asleep immediately. My mind was dull and refused to function. I would start a conversation and after a few words my mind was a perfect blank."

A similar attack occurred in November, 1939, about two months after the last operation. The patient became drowsy, could not walk, and was confined to bed. There was a moderate fever. Mental disturbances arose and the patient died a few weeks later, and several months after the last operation.

That the patient's death was in no way a sequel to avulsion of both phrenic nerves is shown by

(1) a somewhat similar occurrence in Smith's Case 2 (*vide supra*), in whom—three months after operation—definite psychic changes were noted and regarded as the result of encephalitis four months before; in this patient, too, be it noted, the left phrenic nerve was at no time exposed or tampered with, it being the only case in this series in which only unilateral phrenicectomy had been performed; (2) the fact that my patient, between operations, lived comfortably an accumulated period of 4 years, 2 months and 12 days with non-functioning phrenic nerves; (3) the patient enjoyed a comfortable period of about sixty days between the time of the last operation and the onset of the usual fall attack of epidemic encephalitis and (4) Lemon's[9] experimental observations on dogs entitled "The Physiologic Effect of Phrenic Neurectomy" showed that the operation itself brings about no impairment of its functions in general, or of its respiratory function in particular, and even when both phrenics are severed "the animal is competent to carry on its usual activities without embarrassment or dyspnea." In his conclusions Lemon states, "The experimental work would lead one to believe that respiration is a complicated mechanism, made up of the combined movements of various sets of muscles each so controlled that coordination of movement is maintained, yet each so independent of the other that it may be put into dysfunction without disturbing the action of any others, singly or combined. Compensation is highly developed and a factor of safety, so that the animal crippled by the loss of even so important a structure as the diaphragm may not only survive, but be competent to live an active and a normal life. It may be true that the importance of the diaphragm has been overestimated." Campbell[5] states that unilateral paralysis of the diaphragm produces no symptoms; bilateral paralysis results in dyspnea, while coughing and straining at stool are often unsatisfactorily performed: chronic congestion of the base of the lungs also results. My patient, however, exhibited none of these symptoms.

Again, my patient writes: "I then (in the early stage of her illness) began to have falling spells—backwards—and these were followed by weakness and exhaustion. At first I would fall once a week and then once a day, until I fell as often as 4 times a day. I always told people to let me lie for some time, otherwise the back of my head and spine would pull into a semicircle, causing extreme pain and exhaustion. After phrenicectomy the falling attacks became less frequent and finally disappeared."

In a paper entitled "Respiratory Disturbances Following Epidemic Encephalitis" W. A. Smith[10] states that these may be due to inflammatory changes in the respiratory organs, to bulbar lesions, or to myoclonic contractions of respiratory muscles. Phenomena of the chronic stage of the disease were classified by Marie[11] into (1) Disturbances of respiration proper, as tachypnea (either permanent or paroxysmal with periods of apnea), and bradypnea; (2) Spasmodic cough, and (3) Respiratory tics. Smith's article has a picture of a patient in the opisthotonos (?) position described by my patient (*vide supra*).

As to the duration of induced paralysis of the diaphragm after the various operative procedures we find that after freezing it lasts from two to twenty-five days; after stretching (e.g. following anterior scalenotomy, as pointed out by Spurling and Bradford[12]), about six weeks; after crushing at one point with a toothless clamp (Stenson[13]), four to six months; moderately severely in two places (Yates & Raine[14]), eight or ten weeks; severely in four places, three or four months, while more severe crushing in five places will induce paralysis of longer duration, but recovery is uncertain; after injection of alcohol, six to twelve months; after division, three, five, or seven months; after resection (length of gap apparently immaterial) quite regularly nine months, and after avulsion (exeresis) paralysis of the diaphragm is permanent. Yates and Raine[14] designate temporary paralysis as phrenemphraxis, and permanent, phrenicectomy, or exeresis. The former is used to relieve hiccup, or pulmonary tuberculosis; the latter, diaphragmatic tic or pulmonary tuberculosis. Among the accidents during these procedures, Yates and Raine mention fatal hemorrhage from tearing of the subclavian vein, and tearing of the thoracic duct on the left side. Furthermore, these authors state that the main trunk of the phrenic nerve contains both motor and sensory fibers, and when irritated it produces pain referred to the back of the shoulders or neck.

Some other causes of spasm of the diaphragm encountered in the literature are: Hereditary, it having been transmitted to 5 children (Anderson[15]); epidemic transient spasm (Payne & Armstrong[16]); cervical rib (Hunt[17]); fracture of xiphoid process (Bird[18]); pregnancy (Fauverge[19]),

[9] Lemon, W. S.: Physiologic Effect of Phrenic Neurectomy, *Arch Surg.* **14**:345-361, (Jan.) 1927.

[10] Smith, W. A.: Respiratory Disturbances Following Epidemic Encephalitis, *Arch. Neurol. and Psychiat.*, **15**: 617, 1926.

[11] Marie, P.: Cited by W. A. Smith.

[12] Spurling, R. Glen, and Bradford, F. Keith: *Ann Surg.* **107**:708-715, (May) 1938.

[13] Stenson, W.: Pitfalls of Phrenic Nerve Crushing, *Am. J. Surg.* **48**:599-600, (June) 1940.

[14] Yates, J. L., and Raine, F.: Induced Paralysis of the Diaphragm, *Arch. Surg.*, **21**:666-78, 1930.

[15] Anderson (Mc C.): Case of Spasm of the Diaphragm with Hereditary Transmission to Five Children, *Glasgow M. J.* **28**:292, 1887 (4) s.

[16] Payne, G. C., and Armstrong, C.: Epidemic Transient Diaphragmatic Spasm; a Disease of Unknown Etiology, Epidemic in Virginia, *J.A.M.A.*, **81**:746-8, 1923.

[17] Hunt, G. B.: Clonic Spasm of the Diaphragm Associated with a Cervical Rib, *Brit. M. J.*, Lond., ii, 314, 1909.

[18] Bird, C. E.: Fracture of Xiphoid Process Causing Clonic Spasm of Diaphragm, *J.A.M.A.*, **89**:101-102, (July 9) 1927.

[19] Fauverge: Rev. méd. franc. et étrang., Par., ii, 217-221, 1836.

while the condition has even been noticed in the horse (Harvey,[20] Trum[21]). Bersani[22] reported the case of a gardener in whom rhythmic clonic contractions of the diaphragm up to 120 a minute occurred irregularly, sometimes after emotional stress, and the man was able to accentuate or inhibit them at will (neuropathic). Remak has reported a somewhat similar case, in which the clonic contractions occurred up to 48 or 54 a minute and violent enough to shake the trunk. My patient quite aptly likened this type of breathing to the panting of a dog: this is shown very strikingly in the moving picture.

Conclusion. Chronic spasm of the diaphragm when due to epidemic encephalitis can be permanently relieved only by total avulsion (exeresis) of both phrenic nerves. This bilateral total avulsion should be performed at the first sitting.

SUMMARY

A study extending over a decade has been made of a case of chronic spasm, or tic of the diaphragm due to epidemic encephalitis.

Ultimate cure was attained only after complete ablation of both phrenic nerves, since all other known methods of interfering with the function of these nerves have been followed by recurrence. An exception to the latter statement might obtain in Yates and Raine's suggestion that the phrenic nerve be severely crushed in five places (*loc. supra cit.*), but this has not been followed to its ultimate conclusion.

The regenerated phrenic nerve is a small thread and may be entirely overlooked; if it cannot be seen, an attempt should be made to divide it by scratching with the scalpel along its known course down the anterior face of the scalenus anticus muscle.

Paralysis of the diaphragm following phrenic exeresis apparently has no adverse effect upon the patient's sense of well-being.

The accumulated literature has been reviewed to date, but only five cases of postencephalitic tic with operative intervention could be found.

The moving picture film, which was a part of this presentation, shows the right diaphragm tugging away at the patient, the operation of transthoracic phrenicectomy which was devised to meet special conditions encountered in this case, and the ultimate result of phrenic exeresis, after which the spasms disappear and the breathing becomes costal in type.*

In nerve regeneration the axons grow at the rate of 1 mm. a day, thus accounting for the nine months required in my case of the right phrenic nerve.

It is seldom in surgery that a motor nerve is deliberately divided: rather, motor nerves divided by trauma usually undergo neurorrhaphy. The author's case, therefore, is probably unique in that a motor nerve was intentionally divided and resected five times and regenerated each time within an average of nine months.

Because of its connection with the vital function of respiration there may be a phylogenetic urge that accounts for the marvelous regenerative property of the phrenic nerve.

And finally neither I nor, I believe, anyone who has read my article can agree with the writer who recently states[23] "Permanent phrenic nerve operation means the removal of 1 cm. of the nerve, thereby establishing permanent hemi-diaphragmatic paralysis."

[20] Harvey, F. J.: Spasm of the Diaphragm in the Horse, *Vet. Rec., Lond.*, **13**:351-4, 1933.

[21] Trum, B. F.: Spasm of the Diaphragm in a Horse, *Cornell Vet.*, **26**:249-251, 1936.

[22] Bersani, I.: Tic of Diaphragm, Policlinico (sez. prat.) **28**:1576-1578, (Nov. 21) 1921.

* This film may be borrowed upon application to the author. It is believed to be the only one that shows spasms of the diaphragm in the living patient.

[23] Grace, E. J.: Closure of Large Apical Cavity with Phrenic Nerve Paralysis and Scalenotomy, *Medical Times*, November, 1940, 496.

ABSTRACT: JOURNAL WARNS AGAINST DRIVING WHEN TAKING SULFANILAMIDE

"Many therapeutically effective drugs influence the physiologic mechanisms, psychomotor reactions or judgment of persons who take them," *The Journal of the American Medical Association* for May 17 points out in a warning on the dangers of impaired judgment resulting from the taking of sulfanilamide and its derivatives. "When given to patients at rest in bed such drugs have been established as beneficial to the patient and of course harmless to other persons.

"Under some circumstances, however, drugs may have effects potentially dangerous to both patient and community. Not long ago a locomotive engineer who was taking sulfanilamide for an infection of the bladder was involved in an accident in which considerable property damage was done and a number of people were injured. He described the event as follows:

" 'Approaching the station where the accident occurred, a feeling of lassitude seems to have crept over me unawares and to the extent that I do not have much recollection of what went on for the last two or three miles. I was sitting on my seat, looking out and feeling that I was on the alert. . . . Actually I was not on the job with all my faculties. I passed landmarks customarily used to locate position without seeing them, even to the station board; and it was only when the hazard became imminent that I was aroused out of it and became efficient.'

"Already physicians have ruled that airplane pilots must not fly until four days have elapsed after they have received any of the sulfonamide group. Patients engaged in mechanical work of any kind should not take sulfanilamide except when relieved from their responsibilities. Physicians thus have a definite obligation when prescribing sulfanilamide.

"Patients should be cautioned preferably to stay at home and at rest while taking the drug and not to drive an automobile, make any important decision or sign any papers while the drug is being administered. Such recommendations seem especially advisable in view of the insidiously developing reactions of sulfanilamide when compared with such drugs as the bromides and the barbiturates."

RUPTURE OF AN INFARCTED GRANULOSA CELL TUMOR OF THE OVARY WITH MASSIVE HEMORRHAGE*

AMIL C. BACH, M.D.
INDIANAPOLIS
M. M. MONTGOMERY, M.D.
CHICAGO

Since Von Kahlden[1] reported the first granulosa cell tumor in 1895 as an "Adenoma of the graafian follicle" the condition has been reported with increasing frequency. However, we believe the post mortem findings of hemoperitoneum with a ruptured infarcted granulosa cell tumor is sufficiently rare to warrant reporting.

CASE REPORT

Mrs. D. J., a 36 year old white female was admitted to the Cook County Hospital on July 2, 1940, with the complaints of severe abdominal pain, vomiting and obstipation. On June 28th, the patient was suddenly seized with a severe, constant pain in the umbilical region, which gradually spread over the entire abdomen. She took a cathartic and in a few hours had a loose stool. On the following day the patient began vomiting everything taken by mouth.

The past history was negative except for a milder attack of abdominal pain of 1 week's duration in 1936. The patient had one child 11 years of age. During the preceding year her menstrual periods had been irregular and of shorter duration. Her last menses occurred in April.

Physical examination revealed a white female patient in profound shock. The extremities were pale and cold. Pulse rate was 132, respirations 30, blood pressure 95/60 and rectal temperature was 104.0. The lips were pale. Heart and lung findings were normal. The abdomen was distended, tympanitic and tender, especially over the lower quadrants. Rigidity was not marked. Peristaltic sounds were absent. On pelvic examination, both adnexa were tender and the anterior fornix was filled by a firm, slightly tender mass. The red blood count was 3,110,000 and the white blood count was 14,100.

A diagnosis of acute intestinal obstruction which was due to a pelvic abscess or infarction of a twisted ovarian cyst was made. A Levine tube was introduced into the stomach and continuous suction applied. Intravenous glucose solution and blood transfusion were resorted to but the patient's condition did not improve sufficiently to permit surgical intervention. The pulse rate and respirations increased and the patient expired ten hours after admission.

Post mortem examination, limited to the abdomen, revealed a well developed and well nourished anemic white female. The abdomen was distended and tympanitic. The peritoneal cavity contained 900 cc. of bloody fluid. The intestinal loops were markedly distended and paralleled each other, and the serosa was injected and covered with fibrin. The spleen weighed 175 gms. It was soft and, on section, was deep purplish red with indistinct markings. The liver weighed 1815 gms. The capsule was thin and the surface was smooth. On section, it was light reddish brown with light tan acinar centers. The intestines were distended and the mucosa and serosa were injected.

The kidneys, pancreas, adrenals and stomach were essentially unchanged. The uterus measured 85 x 55 x 27 mms. On sectioning, the wall was 18 mms. thick and the endometrium was light purplish red and 2 mms. in thickness. The right Fallopian tube was adherent to the right ovary by fibrous adhesions and the fimbriated end was occluded. The right ovary measured 35 x 40 x 65 mms. On sectioning, it was found to be largely replaced by a dermoid cyst. The left Fallopian tube was distended and measured 13 cms. in length. The fimbriated end was patent. The middle third of the tube was incorporated in a mass continuous with the left ovary which was the size of an orange and laterally presented a 25 x 15 mm. area of normal ovarian tissue. The remainder of the mass was pinkish tan to dark purple red and presented a 10 x 25 mm. defect from which a dark purple red blood clot, resembling placental tissue, extruded. Covering much of the mass was a shaggy pinkish tan layer of fibrin. The cut surface was dark purple red and mottled with lighter tan areas.

Microscopic examination: The left ovary was practically replaced by a trabeculated immature to mature type of granulosa cell tumor. It contained enormously dilated vessels and large areas of infarction. Some of the veins were thrombosed and there were large areas of hemorrhagic necrosis. Here and there were areas of old hemorrhage. The normal ovarian tissue contained numerous corpora albicantia.

The right ovary consisted mainly of fibrous collagenous tissue and remnants of a dermoid consisting of partially cast-off epithelium, hair follicles, sebaceous glands and small masses of fat tissue, much of which was necrotic. The endometrium of the uterus was slightly thickened and there was a moderate glandular hyperplasia. The liver and kidneys showed anemia and parenchymatous degeneration.

* From the Department of Pathology, Cook County Hospital, Chicago, Illinois.

[1] Von Kahlden: *Zentralbl, fur Allg. Path. u Pathol. Anat.*, **6**:257-264, 1895.

DISCUSSION

Robert Meyer[2] suggested that these tumors arise from granulosa cell rests. Schiller[3] believes that they arise from the earlier undifferentiated forebears of the granulosa cell. The ova-like inclusions formerly interpreted as ova are really hydropically changed cells and are known as Call-Exner bodies, the names of the first investigators.

Granulosa cell tumors vary from 6 x 5 mm. tumors (Schiller[3]) to twice the size of a man's head (Dworzak[4]). They are usually unilateral, soft, well encapsulated, smooth and rarely malignant. Usually they are solid though cystic areas are sometimes present.

In all ovarian tumors the ovarian ligament serves as a pedicle. When the tumor is adherent to the intestines or becomes large, the pedicle stretches and sometimes torsion follows. However, this usually takes place in those cases in which the tumor is entirely or at least partially cystic and rarely in solid massive tumors. Since granulosa cell tumors are usually solid and seldom adhere to the intestines, torsion is rare. Szathmary[5] found fine light adhesions to neighboring structures in only 4% of his cases.

Histologically, granulosa cell tumors present all possible transitions from the immature fibroma-like type to the trabeculated type, and from this to the mature folliculoid type or the folliculoma.

Hemorrhage into the cystic cavities or into the tumor tissue is quite common. On section, in such tumors, the usual yellowish surface is mottled with dark hemorrhagic areas. In torsion of the pedicle infarction often occurs with subsequent hemorrhage into cystic areas of the tumor substance, or the tumor may rupture with extensive hemorrhage as in our case. Free fluid is seldom found in the peritoneal cavity, and blood tinged fluid probably only in those cases in which there is torsion of the pedicle and hemorrhagic infarction of the tumor.

In reviewing the literature we found reports of several cases in which hemorrhage into the peritoneal cavity occurred. However, spontaneous massive hemorrhage as in our case had not been reported. Taussig[6] in 1931 reported a case of granulosa cell tumor which ruptured during preoperative cleansing of the vagina. On opening the abdomen 700 to 800 cc. of fresh blood was found. The patient was not in shock and following surgery made an uneventful recovery. Alice Blau[7], in 1932, reported that in one of her 7 cases there was a torsion of the pedicle, but she failed to indicate whether this tumor hemorrhaged. Lepper, Baker and Vaux[8] report 1 case of granulosa cell tumor with torsion of the pedicle in which there was slight intraperitoneal bleeding. Margaret Schultz[9] in 1933 reported a case simulating an ectopic pregnancy. Microscopically a diagnosis of medullary carcinoma was made. Several years later, on reviewing the case, the diagnosis was changed to granulosa cell tumor. She also reported a case of granulosa cell tumor with a twisted pedicle. Deutsch[10] in 1933 reported a case with bleeding into the peritoneal cavity from a mass which grossly appeared to be a left ovarian pregnancy. Microscopically this proved to be a mature granulosa cell tumor. Klaften[11] in 1933 reported a granulosa cell tumor with a small amount of hemorrhage and a massive ascites. Kermauner[12] reported a case of granulosa cell tumor with torsion of the pedicle and slight hemorrhagic ascites in a 9 year old girl. Further cases of torsion of granulosa cell tumors are reported by Miller.[13] However, he does not state whether or not there was free blood in the abdomen in any of them.

Other tumors in the same or opposite ovary occur quite commonly with granulosa cell tumor. Fibroma, adenofibroma, teratoma and dermoids have all been reported.

Our case presented menstrual irregularities with amenorrhea for 3 months prior to the onset of her complaints. This is common during the active sexual period. Precocious sexual development accompanies this tumor in young girls and abnormal bleeding and rejuvenation is seen when the tumor occurs in the post menstrual age. This tumor may occur at any age although it is most frequently noticed in the fourth and fifth decades.

Hyperplasia of the endometrium and enlargement of the uterus usually accompanies the tumor and enlargement of the breasts has been reported.

In the past twelve years there have been 21 granulosa cell tumors observed in the Cook County Hospital. Of these, two were considered malignant.

In the accompanying table the ovarian tumors and tubal lesions causing marked hemoperitoneum are recorded by year for the past twelve years. Ectopic pregnancy is by far the most common lesion found.

---

[2] Meyer, Robert: *Arch fur Gynak.*, **CIX**:212-248, 1918.

[3] Schiller, Walter: *Pathologie und Klinik der Granulosazelltumoren Verlog.* Von Wilhelm Maudrich, Wien—1934.

[4] Dworzak, H.: *Arch fur Gynak.*, 154:441, 1933.

[5] Szathmary, Zoltan V.: *Zentralbl. fur Gyn.*, **56**, p. 1185, 1932.

[6] Taussig, Fred J.: Granulosa Cell Tumor of Ovary *Amer. J. Cancer*, **15**, p. 1547, 1931.

[7] Blau, Alice: *Virchows Archiv.*, 287, **34**. 1933.

[8] Lepper, E. H.: Baker, A. H., Vaux, D. M.: Granulosa Cell Tumors of the Ovary, *Proceedings of Royal Society of Medicine*, **25**, part 2, p. 1241, 1932.

[9] Schultz, Margaret: *Amer. J. Ob. and Gyn.*, **26**, p. 627-641, 1933.

[10] Deutsch, Joseph: *Zentralbl fur Gyn.*, **51**:651, 1933.

[11] Klaften, Emanuel: Granulosa Cell Tumors, *Arch fur Gyn.*, **150**, p. 643, 1932.

[12] Kermauner, Fritz: Handbuch der Gynak., 3 ed., Vol. VII, 1932. Published by Bergmann, Munick, Germany.

[13] Miller, John: Henke-Lubarsch Handbuch der Speziellen Pathologischen Anat. und Hist. VII/3 639.

OVARIAN AND TUBAL LESIONS CAUSING MARKED HEMOPERITONEUM AT COOK COUNTY HOSPITAL

	1928-30	'31	'32	'33	'34	'35	'36	'37	'38	'39	'40
Ectopic Pregnancy	68	65	21	29	37	52	44	61	39	46	54
Ovarian Cyst with Twisted Pedicle	1		2	1				1			1
Fibroma of Ovary with Twisted Pedicle	2					1					
Hem. Infarction of Ovary (Cause unknown)						3					
Granulosa Cell Tumor (Benign) with Twisted Pedicle											1
Dermoid Cyst with Twisted Pedicle						1					
Infarcted Tube								1			

SUMMARY

A case of a granulosa cell tumor with twisted pedicle, secondary rupture, intraperitoneal hemorrhage and peritonitis is reported.

Granulosa cell tumor may simulate ectopic pregnancy by primary amenorrhea and secondary irregular bleeding.

The various ovarian and tubal lesions with which this condition might be confused, and their frequency at the Cook County Hospital, are tabulated.

ST. VINCENT'S HOSPITAL
1853 W. POLK ST.

ABSTRACTS

SULFATHIAZOLE IS BENEFICIAL FOR RECURRENT MOUTH DISEASE

"In 2 cases of recurrent, scarring aphthae, sulfathiazole was beneficial in relieving soreness of the lesions and promoting prompt healing," Richard L. Sutton Jr., M.D., Kansas City, Mo., reports in *The Journal of the American Medical Association* for July 19.

"Sulfathiazole did not prevent recurrences, however," he continues, "but it gave comparable relief a second time. A large dose works better than a small one. I know of no other treatment as effectual."

Cases of aphthae, the author says, are not common and are recognized under many names, but all are alike and their cause is unknown.

"Commencing as a small nodule within and beneath the mucous membrane of the lip, cheek or tongue," he explains, "a lesion increases in size, sloughs and causes severe pain, becomes a crateriform ulcer with inflamed, firm borders, runs a course uninfluenced by local treatment and eventually heals, leaving a soft, pliable, depressed, whitish scar. Several lesions may be present simultaneously. The patient, suffering over a period sometimes of many years, can scarcely swallow during exacerbations. He seeks relief, generally without any success whatever despite the ingenuity of numerous consultants, and shows a mouth with many scars to the sympathetic practitioner, who knows the better the wider his experience is that he can indeed do little to give relief."

One of the author's 2 patients had had the recurrent ulcers for eighteen and the other 1 for one and a half years. After two months of treatment the first patient said that her mouth healed completely for the first time in four or five years and stayed healed for two months. Then the disease recurred. Further treatment with sulfathiazole caused the lesions to decrease in size, but new lesions continued to appear. The response of the other patient's ulcer to the drug was prompt and gratifying, the ulcer showing good clinical improvement five days after starting the treatment. This patient reported relief from pain within forty-eight hours after starting the drug. The lesion healed satisfactorily but a year later a new sore commenced. Sulfathiazole again produced the same effect of aborting the lesion and giving relief from pain.

EYE CARE DURING CONVALESCENCE

Amusements that are restful to the eyes are best for convalescent children, Constance J. Foster, Great Neck, N. Y., suggests in *Hygeia, The Health Magazine.*

"During convalescence from any prolonged or serious sickness," she points out, "the eyes are weak and in need of special protection from strain. Yet this is the time when the child is frequently given books to read or amusements that require close visual application. It would be wiser to encourage periods of rest for the eyes by reading aloud to the child or providing him with projects that do not overtax the already weakened nerves and muscles of the eye."

Annual Convention

Indiana State Medical Association

STILL AND MOVIE PHOTOGRAPHY EXHIBITION

An innovation this year at the convention will be an exhibit of still and moving pictures taken by physicians from over the state and locally. This will be held the evening of the stag party.

A great many physicians make a hobby of still or 8 mm. or 16 mm. movie photography and each has his prize pictures or reels that he is proud to show his friends. It is the earnest request of the committee that you bring to the convention your best pictures. We will furnish the hanging of your prints and the projection of your movies.

Please write to the chairman and tell him what you will bring; the Committee will do the rest.

COMMITTEE ON PHOTOGRAPHY

William E. Gabe, M.D., *Chairman*
612 Hume-Mansur Building, Indianapolis

Indianapolis,
September 23, 24, 25, 1941

This is the seventh of a series of articles on Indiana's "twelve great killers." In 1940 there were 1,511 deaths from Arteriosclerosis in Indiana. Next month the article will deal with Tuberculosis.

ARTERIOSCLEROSIS

JAMES B. MAPLE, M.D.
SULLIVAN

Arteriosclerosis is the most common arterial disease and is present to some extent in every individual who is past sixty years of age. Last year arteriosclerosis was the cause of death in more than fifty per cent of the physicians in Indiana, and was definitely named in the death certificates of about forty-five per cent.

Arteriosclerosis produces no symptoms, but it does interfere with both the flow of the blood and the control of the vasoregulatory functions. This interference in the circulation of such vital organs as the heart, kidneys, and brain produces physical disability and death. Involvement of the vessels of the extremities is equally serious. Therefore, the problem for the physician is not so much that of the arteriosclerosis as it is the effect caused by the sclerosis upon various organs of the body.

The social and economic aspects of this condition are also problems to which we must to some extent direct our attention. The 1940 census will probably show an increase over the census of 1930 of from eight to ten million people in the age group of fifty years or more. This is the group in which the effects of arteriosclerosis are first apparent. The loss of life and the loss of working ability in this group creates an economic problem which ties up with the social existence of these victims and is adding to the burden of our old age difficulties.

The exact etiology of arteriosclerosis has not been determined, perhaps because it is due to a variety of causes. The role of alcohol is disputed. Tobacco undoubtedly has some influence, especially in coronary sclerosis. Intensive work also is a causative factor. As to nutrition, it seems that those who have insufficient food develop mild atherosclerosis and those who over-eat are found in the group having marked sclerosis. It is thought that excessive use of animal proteins and cholesterol-containing foods in the diet increases the tendency to the deposit of lipoids and calcium. Mental shock and too strenuous and prolonged mental labor, as well as worry, seem to influence the increase of this condition. The role of infections still is disputed. Some workers claim to have been able to show the influence of infections while others think such results have not been proved. Increased pressure in the vessels also seems to contribute to this trouble. Heredity may influence the type of arterial wall, making one more or less susceptible to vascular change. Arteriosclerosis creeps upon us as do the years, and the wear and damage that befall us aid its development. Work, worry, haste, gluttony, toxins and infections take their toll and our arteries lose their youth. Then the day comes when some vascular crisis forces us to face disability and the uncertainty of life.

Of the various vascular diseases perhaps only four types should be placed under the name of arteriosclerosis, namely, Atherosclerosis, Mönckeberg's sclerosis, Arteriolosclerosis and Senile arteriosclerosis.

ATHEROSCLEROSIS

Atherosclerosis affects the aorta and its main branches, the coronary and its main branches, the cerebral arteries, and the arteries of the extremities. There is a difference of opinion as to its cause. The damage to the artery is found in the intima, where nodules form into irregular plaques which project into the lumen. Necrosis may occur in the intima. If ulceration occurs it may become the site of thrombus formation. Narrowing of the lumen occurs, and this is the feature that produces the clinical evidences of this trouble. Obliterative endarteritis may occur in the terminal branches of the arteries due to hyperplasia of the intima. In this type of arteriosclerosis it would seem that the wear factor of age has less influence than have the infective or toxic causes. In the larger arteries this type of sclerosis would cause trouble chiefly by a lack of elastic response, so that the vessel does not contribute to the normal flow and volume of blood. In the smaller arteries there would be occlusion of the lumen and marked intereference with the flow.

MONCKEBERG'S SCLEROSIS

Mönckeberg's sclerosis occurs in the media of the large and medium sized muscular arteries of the periphery. It is a degeneration of the muscle fibers of the media. Calcium is deposited so as to form rings, making the hard-beaded arteries of the aged. In contradistinction to atherosclerosis, this type causes a widening rather than a narrowing of the lumen which causes little interference with circulation.

ARTERIOLOSCLEROSIS

Arteriolosclerosis presents a structural change in the intima with hyaline and fatty degeneration and narrowing of the lumen. These changes occur in the arterioles of the brain, kidney, pancreas, liver, spleen, coronaries, and retinal vessels. This is the type of sclerosis in which there is a marked rise in the blood pressure, called essential hypertension. This increase in the height of both systolic and diastolic pressure probably precedes the changes in the arteries and causes hypertrophy of the medial layer, followed by later degenerative changes.

SENILE ARTERIOSCLEROSIS

Senile arteriosclerosis is that hardening of the arteries which occurs due to the aging of the organism. There is atrophy of the media with loss of elasticity and muscular power. Connective tissue replaces these elements and the arteries lose their tone so that they cannot assist in the propulsion of the blood. This increases the work placed upon the heart and increases blood pressure even though there is no interference with the size of the lumen nor obstruction to the flow. Vascular control is largely destroyed.

Arteriosclerosis only produces symptoms when it interferes with the normal circulation. These symptoms will vary according to the organ that has its blood supply disturbed. In the senile type of arteriosclerosis there occurs a moderate rise in systolic pressure with the diastolic remaining normal or even, at times, subnormal. There are no symptoms from obstruction of circulation, but there is an increased demand on the heart which results in loss of power, causing a general weakness which is accompanied by loss of strength and function throughout the body. There is shortness of breath, inability to perform any very heavy labor, and diminution of the special functions and senses.

Mönckeberg's sclerosis is usually found in the peripheral arteries only and, as it does not interfere with circulation, it is doubtful if it produces any damage to the organism. One should classify it by the hard, beaded, ringlike tubing of the arteries and realize that this type does not cause trouble. If symptoms of disease are found, it is highly probable that some other type is present concurrently.

Atherosclerosis is usually found when it begins to interfere with the oxygen or the nutrient supply of the part involved. Its chief location is in the coronaries, the kidneys, the brain or the extremities. Fibrosis and thickening of the vessel walls may narrow the lumen so much that there is lack of oxygen and nutriment, and perhaps a thrombus forms in the slowed blood stream, especially if there is a break (so-called cholesterol abscess) in the surface of the intima. In the case of the coronary arteries this produces angina pectoris, as well as coronary thrombosis and infarction. If it happens in the renal arteries it produces a renal ischemia and disturbance of renal function which quite frequently ends in uremia. In the cerebral arteries this type of sclerosis produces two effects. It may occlude the artery with formation of a thrombus, or it may cause many small aneurysmal dilatations to form along the course of the vessels which may rupture and produce various pressure and degenerative effects, sometimes paralysis or death. In the extremities the interference with oxygenation and nutrition produce symptoms that are very distressing to the patient, and if the endarteritis proceeds far enough there is obliteration of the vessels with numbness, burning, weakness, cramps, intermittent claudication, and often a final gangrene of the extremity.

Arteriolosclerosis occurs chiefly in the vessels of the liver, kidney, spleen, pancreas, heart muscles, cerebral tissue and retina. This is the type of sclerosis that is present in the so-called essential hypertension. It is probable that the hypertension precedes any evidence of the sclerosis, and it is also possible that the constant hypertension causes a compensating hypertrophy of the vessel wall, chiefly in the media, which in time is followed by degenerative processes. In this type of sclerosis there occur high systolic and diastolic blood pressures. It is well to remember that in senile sclerosis and atherosclerosis there is only a moderate rise in pressure and the diastolic stays down. In Mönckeberg's sclerosis there is little change in the pressure reading unless one of the other types is also present. In hypertensive arteriolosclerosis the height of the blood pressure readings is no criterion as to the seriousness of the disease process. Very high readings may exist for long periods of time before any evidence of breakdown occurs; for instance, I have a patient who, following eclampsia in 1922, constantly has had a reading that has averaged 220 to 240 systolic and 120 diastolic, and who now shows normal kidney function tests, normal electrocardiogram, and normal basal metabolism, with only a moderate amount of cardiac hypertrophy. She has been able to work rather long hours all this time and medication for several years has been an occasional small dose of phenobarbital. One patient was discovered with a pressure of more than 300; after this discovery, she lived six years, then died of congestive heart failure.

In essential hypertension and sclerosis the condition of the heart is most important. Coronary disease, most often thrombosis and angina pectoris, frequently occurs and may eventually lead to congestive failure. The left ventricle, which bears the burden of pressure, often weakens and fails. Essential hypertension is one of the chief causes of cardiac failure. Sixty-five per cent of the hypertensives die as a result of heart disease. One-fourth of all deaths above fifty years of age are caused by hypertensive heart disease. In the cerebrum, hypertension usually results in hemorrhage. One-fourth of all hypertensives die from cerebral changes, chiefly hemorrhage or encephalomalacia. In the kidney we find renal insufficiency and eventual uremia. The hypertension results in progressive arterial hypertrophy and fibrosis with a reduction in the blood supply. The progress may be slow, extending over a number of years, but in about ten per cent of the cases there occurs a malignant hypertension with rapid decompensation and a uremia with very high blood pressure readings. In the extremities intermittent claudication and gangrene occur.

For some as yet undetermined reason there seems to be some relationship between arteriosclerosis and

diabetes. Usually this sclerosis is of the atherosclerotic type, and the connection between the two conditions may lie in the question of the disturbed metabolism of fats. That some relationship does exist is borne out by the fact that there is much more coronary sclerosis in the diabetic than in the non-diabetic, and that there are practically as many cases found in women as in men. Coronary thrombosis and angina pectoris are the most common causes of death in diabetic patients, and the rate increases with the length of time the patient has had diabetes. Once these conditions are established, they are to be treated as in the non-diabetic, accompanied by the strictest attention to the diabetic regime of the patient.

There is a social and economic side to this condition which is worthy of some consideration. Arteriosclerosis is a slowly progressive disease which all too frequently produces disability long before it destroys the victim. The question of the care of these people, even the providing of bare necessities, is often a problem. They are, of course, all elderly and are apt to be without a means of livelihood, poorly fed, neglected by any relatives they may have, and quite frequently indifferent to their own needs. Many of them have sufficient sclerosis to interfere with their mental processes, making them very difficult to get along with and causing them to refuse to cooperate with their children and others. Even with the best of care they are apt to have long periods when they are bedfast. With their continued disability they become despondent and hopeless, and make it difficult for those who would help them to do anything worth while.

The mental changes come on gradually, and the victim often upsets and disrupts the home life before it is realized that the trouble is caused by his arteriosclerosis. Some become quarrelsome, some become demanding and dictatorial, some want to be left alone and refuse help, and many still want to continue in occupations in which they are no longer competent. In the latter stages many become careless of their person and habits, lose their mentality, and have to be cared for as little children.

Those cases whose sclerosis causes coronary disease, cerebral hemorrhage with paralysis, kidney involvement or disability of the extremities must of necessity have their activity curtailed. Then comes the problem of reestablishing their lives, creating new habits and new occupations. When one has led an active, aggressive life, it is hard suddenly to be told that he must quit, and take up some sedentary occupation. It is hard to teach a man to play who has always worked long and hard each day. And, for the woman who has been mistress of her home for almost a life time, it is equally hard for her to sit back and let someone else run it. It takes ingenuity and patience on the part of the physician to provide occupations that are suitable and which will not overtax the damaged organism. We must let them do as much as they can, we must remove uncertainty and worry, and we must not neglect them even though they must sit in chairs. They must be made to feel, if possible, that they are still a part of the life that goes on about them.

The prevention of arteriosclerosis is difficult inasmuch as there are few causal factors known. The intemperate use of tobacco is one, and it is well to limit its use among those who show clinical signs of sclerosis. Immoderate use of alcohol is another habit that causes trouble. There should be moderation also in eating and in physical and mental activity. When symptoms of heart disease first appear, limit the activity. If there is anginal pain upon exertion, try to find the type of exertion which causes pain and limit that effort while still allowing other effort which does not produce pain. The cause may lie in too heavy eating, physical exercise too soon after a meal, straining at stool, or emotional strain. In hypertension the physician should also take it easy. Do not worry too much about that systolic pressure. Do not attempt to lower it too fast or too much. The circulation may need that pressure to get the blood into the body. If congestive failure develops, treat it the same as in any other condition. In coronary occlusion, put the patient at rest, both physically and mentally, start oxygen, give morphine hypodermically for pain, and disturb the patient as little as possible. The patient should be kept in bed for about six weeks and he should be slow in returning to his work.

The patient who has coronary sclerosis may need surgical procedures the same as the one who has no sclerosis. If such a demand does arise, the procedure chosen should be the very minimum compatible with recovery, and should be as speedy as possible. Fractures should be treated in a manner which is least apt to cause worry and distress to the patient.

Cerebral arteriosclerosis most commonly terminates in cerebral hemorrhage resulting from rupture of an atheromatous artery. Thrombosis also occurs in atheromatous vessels. Treatment is very ineffective and consists mostly of quiet rest at the time of the accident, with patient reeducation of the use of the parts affected when recovery tends to occur.

Finally, blood pressure is a symptom only; it should be lowered with care. Once elevated, it should remain higher than normal, and it should not be reported to the patient at each visit lest he become so pressure-conscious that the slightest rise or fall will disturb his well-being.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Mrs. J. S. Skobba, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943

AUGUST, 1941

Editorials

ARTERIOSCLEROSIS

Recent interest in the study of vascular diseases has brought to light many new and interesting facts in the problems of arteriosclerosis. Scant progress, however, has been made in determining the causal factors and little more has been added to preventive or curative treatment.

The work of Leary-Patterson and others in the last few years has shown that our older ideas of plaque formation on the wall of the artery, causing a roughened area and the formation of a thrombus at this site, is not the true pathological picture. The arteriosclerotic changes found in different parts of the vascular system are essentially the same and vascular accidents which occur, whether in the brain, heart, or extremities, are only incidences in the degenerative process due to arteriosclerosis. Thrombosis does not form in a healthy artery.

Joslin, in his recent edition, states that arteriosclerosis has increased 333% as a cause of death in diabetics, and coronary occlusion is five times more frequent among diabetics than non-diabetics. This strongly suggests that diabetes is at least one of the factors in producing this general metabolic change.

The variety of pathological changes, which takes place within the wall of the sclerotic coronary arteries, including intra-mural hemorrhages, atheromatous "abscesses," calcification, and, in some instances, definite bone formation, truly shows degenerative and healing or reconstructive processes constantly involved. Nature's effort in healing is no more striking than her method of nourishing the myocardium by anastomatic branches in the presence of slow and gradual narrowing to final occlusion of even the three main branches of the coronary arteries.

To the laboratory investigators and the biological chemists we must look for the answer. Such investigations as those made by Page, Goldblatt, and Schlessinger, promise much for the future.

A HEALTH COUNCIL

The Monroe County Medical Society has inaugurated an interesting program through the formation of a Health Council. The Bloomington press has given much space to this venture and a recent issue of the Bloomington *Telephone* devoted considerable space to a meeting held by the Council.

In our opinion the Council is starting out on the right foot. At the meeting mentioned there were twenty-nine lay guests, representing a large number of the lay organizations of Bloomington, as well as a fair sprinkling of Indiana University officers and teachers. This idea of inviting neighbor folk into a conference that has to do with the health of the community is very commendable.

At this meeting the subject of "enteritis" was the basis for the program. A member of the faculty of the Indiana University School of Medicine was chosen to present the subject. The problem was attacked from every angle, prevention being stressed to the utmost.

The organization of a Health Council is quite an undertaking; it involves a lot of preparation and program planning and, after it is once organized, it means a lot of hard work for those who are at its head. But we believe that the beneficial results will well repay those who have contributed of their time and ability in such a connection.

Our public wants to know about health matters; they want to ask questions about this and that, and they want this information from authoritative sources. There is no better way to go about such a thing than in an open forum. The lay persons in attendance will be there for educational reasons; they will ask a lot of questions, all of which means that the medical men in charge will at all times have to be on their toes.

We talk—a lot of us prate—about the thing commonly called Public Relations, a development of recent times and a thing most important in our economic life. Time was, as we so often have said, when medicine was a mysterious thing; there was an air of near-voodooism about it, but with our press and our lay magazines printing reams about health matters, and with our radios giving hours of aerial time each day to the same subject, our folk are becoming health conscious.

The big thing, as we see it, is to have this information come from an authoritative source. We of the profession know that the title of "doctor" means little at times; we know that many radio programs and many press articles, announced as coming from

"Doctor So and So" are the veriest rot. But does our public know that? Apparently not. All of us have had patients speak of having heard Doctor Blank say this or that over the radio, or mention having read his article some place or other. Until we have reached the point where the lay public will demand to know who is giving these preachments and how much credence may be placed in these utterings, we have but scratched the surface.

The Monroe County Medical Society deserves a palm for its pioneer work; we know of no similar movement elsewhere in our state. We wish them every success in this undertaking and proffer the assistance of The Journal in any possible way. We know, too, that the Indiana State Medical Association will back them in their program.

ARE WE MISSING A BET?

It seems rather a coincidence that during the past few weeks the same topic of the regimentation of medicine has been brought to our attention by several patients in our office. It is not at all uncommon to have folk say something on the subject, maybe to ask a question, perhaps to volunteer an opinion. One of this group, a man who for some years has been established in Europe as the representative of a large American corporation, recently suggested that he would like to tell us about his observations in that country.

He prefaced his remarks by the statement that he had left a well-equipped home in France, a home that he had purchased and had fitted to the complete satisfaction of himself and family. "But it is gone; I presume I am correct in the opinion that it is gone forever. But I would like to give you my impressions as to the medical situation, not only in France, but in Germany, Russia and in many other countries that seem to have gone haywire on the medical situation." Then he launched into a rather lengthy but very intelligent discussion of medical problems as he had observed them. "No intelligent people would for a moment seriously consider any phase of socialized medicine, *if they but knew what it meant.* I have been all over these countries that have tried or are trying various experiments in that field during the past several years, and feel competent to discuss the subject." He repeated most of the arguments against such a system, arguments which are well known to those of us who give any serious attention to the subject, the crowning one of which was the fact that any system of regimentation "absolutely destroyed all initiative."

Another man, a mill employee, not of the white-collar class, recently expressed a keen interest in the subject. He said he knew little or nothing about the matter but would like to have it explained to him. "Does it mean that we pay for sickness insurance, then take what we get?" was his blunt manner of putting it. When we replied that that was just about what it meant, he at once remarked that he wanted none of it; that when he needed a doctor he wanted *his* doctor!

Many other similar office conversations might be mentioned, but these will suffice for our text. The facts are that if the *average* citizen was made to understand just what socialized medicine means we soon would have a veritable army of supporters in our fight against such a system.

And in these days, when we hear so much of dictatorship, when right in our own land we see various parts of our economic system commandeered, we have a most excellent opportunity for propaganda of a useful, telling sort. Opportunities for the discussion of this subject with our patients comes to every member of the medical profession engaged in active practice. The people want to know what it is all about and the most reliable information on the subject can be had from their physicians.

Then, too, there is another group that may be interested; we refer to the union group, whether they be adherents of the American Federation of Labor or of the Congress of Industrial Relations. But let us refer to the decision of the Federal Court, in which the Americal Medical Association and the Medical Society of the District of Columbia were found guilty of a violation of the Sherman anti-trust law. (In speaking of this decision it is well to mention that the officers of these two groups were found not guilty!) It is our custom to follow this up with a comment to the effect that union labor seems to have a special absolution from the provisions of the Sherman Act, the courts having held that they are not guilty for doing the very things for which our medical groups *have* been found guilty! The very unfairness of the thing appeals to all right-thinking persons and provides good material for making friends.

The point is that we are overlooking many opportunities for "our side"; the average American listens well to argument, if said argument is based on true and correct premises. But we would make at least one reservation: if you do not know what you are talking about, just don't talk! There are far too many members of the profession who are prone to talk about things of which they know too little.

AN APPRECIATION

Many years ago there came to The Journal (then under the direction of the late Dr. Albert E. Bulson) a young woman, Miss Hope Toman. Under Doctor Bulson's tutelage, she became an integral part of The Journal. She came to be known to most Indiana physicians as well as to many in other parts of the country. She had an uncanny faculty of sorting out the good medical writers of this and adjoining states, and she had a "nose for medical news," to use an expression common among those connected with the press. She supplied the editorial staff with leads that

brought out good material for our magazine, and her knowledge of medical terms is exceeded by few in our Indiana profession. She knew the "hack writers" as few medical folk knew them—those doctors who write for the single purpose of publicity—and few of them gained entry into our Journal. A year ago Miss Toman and Dr. Joseph S. Skobba were married. For a while we hoped that she might remain with us at least in an advisory capacity, but the exigencies of war times have sent Dr. Skobba to a southern state, and her connection with The Journal will end on August fifteenth. It will be hard for a while to manage without one upon whom we have relied for so many years, but The Journal joins with Medical Indiana in wishing the best of everything for Dr. and Mrs. Skobba in the days to come. And so we bid her adieu, and Godspeed.

Editorial Notes

The Lafayette *Leader*, in concluding an editorial entitled "The Doctor Is a Soldier" says, "The doctor is a soldier—a soldier fighting an everlasting war against disease and plague and death. Today, medicine is mobilized to make that fight even more effective."

Now that Henry, Jimmie, *et al.*, have decided who's who and why, things about the State Capitol may be expected to resume a normal course, and we Hoosier folk may anticipate a little more attention to the affairs of State. After all, Hoosier politics at times assumes all the properties of an old-fashioned clothesline squabble.

According to comment which appeared in the *Journal of the American Medical Association* for June twenty-first, athlete's foot is the third commonest skin disease met during the summer months. The swimming pools and the shower rooms in our country clubs no doubt are responsible for the seasonable spread of this disease.

Our friend, Toner Overley, of the Indianapolis Better Business Bureau, gets into the big money class at last. He is on the receiving end of a sizable damage suit because he allegedly said naughty things about a concern that manufactures "radioclast" instruments, whatever they may be. The company is asking damages in the rather modest amount of $125,000.

The Evansville *Press*, in speaking of the increase in the span of life during the past few decades, aptly states, "Does it matter to conserve life like this in times when it is being poured out so prodigally on battlefields? Yes, War will not last forever and the knowledge of how to conserve life will be useful long after the knowledge of how to destroy it has become useless."

Our newspaper friends seem ever on the increase. Almost every day we come across some comment favorable to the doings of the medical profession. Just recently we noted the following conclusion to a medical comment in the Ligonier *Leader*: "Here in America private medicine is leading the world in the fight against the greatest of killers—bacteria."

Distribution of accidents by states reveals that drivers are more careful in some sections of the country than in others. For instance in Pennsylvania there was actually a decrease as compared with the previous year of 11 per cent, but in Indiana there was an increase over 1939 of 30 per cent. New Jersey had the smallest percentage of increase with only three per cent. Ohio had 28 per cent increase and New York State 17 per cent.

The Indiana University Medical Center has bought some twenty-five acres adjacent to its present holdings. This brings the medical campus up to the sizable figure of seventy-five acres. As soon as funds are available, it is planned to erect new buildings for which there is an ever-increasing need. President Wells recently said, "Thus we have one of the finest medical centers in the nation," with which statement we most heartily agree. Graduates of this medical school may indeed be proud of its standing.

This daylight saving thing—and we like it—has just about "taken" Indiana, except for a few of our larger cities which seemingly refuse to go modern. The greater part of the state is now operating on the "fast" schedule. We never have sensed the objections to it, even those coming from the farming communities. Daylight saving time does not mean that the cows will produce milk an hour ahead of time, or that the poultry will step up egg production an hour; it does not mean that the morning dew will reschedule itself, or that the pre-breakfast chores will present themselves at unseemly hours. It does mean an extra hour of light in the evening, and to a large group of urban folk that extra hour means a lot. Hence, we are very much in favor of the program.

Two Swedish physicians, Crafoord and Jorpes, according to the *Journal of the American Medical Association* for June twenty-eighth, report a large series of cases in which the postoperative use of heparin seems to have prevented thromboembolic complications. The use of this treatment in 325 cases proved to be 100 per cent successful, while in another group of 302 cases there were 33 cases in which thromboembolic complications were noted. They further state that in Sweden at least 30,000 intravenous injections of this substance have been given, all without untoward symptoms.

Whisperings of a "strike" in the course of physical examinations for the Selective Service Boards are heard in one section of a highly populated county in Indiana. It seems that the medical examiners, who are doing their work gratis, expect the paid employes of the Board to do a bit of the clerical work, thus minimizing the task of the *unpaid* physicians. The *paid* employes have rebelled, stating that this is the job of the doctors. Our recommendation is that when such an occasion arises the medical men walk off the job and remain away until these suddenly-officious persons come to their senses. It's queer how a city, government or state job goes to one's head!

For quite some time we have been concerned about the future of Rush Medical College in Chicago. It had been predicted that this school would finally be merged with the University of Chicago (of which it has been a part since 1924) and that its old, highly-honored name would be lost for all time. Now it develops that the 104-year old institution is being taken over by the University of Illinois and that the old name will be perpetuated. The Presbyterian Hospital also becomes a part of the University as does the long-established outpatient department of the medical school. These two institutions, along with the pharmacy and dental schools, create a new medical center in Chicago.

The problem of what to do about venereal diseases continues to attract the attention of health officials and members of our profession. Just how much progress is being made in the control of these diseases remains a question. A survey of the results of serological examinations in the large group of young men who are called to the army under the Selective Service program would seem to indicate that these diseases are less common than during the first World War. Surgeon General Parran assures us that in 63,000 drafted men, only one-seventh as many cases of syphilis and one-third as many cases of gonorrhea were found as in 1917. It would, of course, be interesting to know from just what areas of the country this group came, and further, whether this percentage might be expected to prevail throughout the country. The American Social Hygiene Association recently released figures tending to show that throughout the country there are some 4,500,000 cases of syphilis, which is quite a drop from the reported figure of 6,000,000 cases reported a few years ago. If these figures are correct, we may assume that the anti-venereal disease program instituted some years ago is beginning to bear fruit, but the road that lies ahead of us is a long and tortuous one. It will take generations before we reach the goal attained by Sweden, for example, where syphilis is so rare that medical students find it difficult to obtain much clinical experience in this disease.

Indiana medicine long has been proud of the fact that Dr. John Stough Bobbs, of Indianapolis, was the first doctor to operate for gallstones. This operation was performed in 1867, the patient being Mary Burnworth, who survived the operation by a matter of forty-six years. The body of Mrs. Burnworth lies in a little cemetery near Oaklandon, and there recently has been erected a sign, along the side of road 67, calling attention to this fact. Thus, we have two such marked graves in Indiana, the other being that of Jane Todd Crawford in a small cemetery west of Sullivan. Mrs. Crawford, it will be remembered, was the pioneer patient in an operation for ovarian tumor, performed by the famed Dr. Ephraim McDowell, of Kentucky.

The Muncie *Star*, editorially commenting on "Loyal Medical Defense," says "Sentiment of most doctors was reflected in the statement of Frank H. Lahey, of Boston, president-elect, that organized medicine should put aside personal differences with the government and work concertedly for the national defense. It behooves the federal administration to take a similar view. The profession is not infallible, of course, but its record of achievements and the code of ethics to which it subscribes entitle the A.M.A. to greater consideration than it has received from reforming extremists in the administration. Organized medicine is more sinned against than sinning in efforts of federal experimenters and spendthrifts to destroy present standards with medical socialism."

We wonder whether our folk are sufficiently appreciative of the work the NYA is doing and whether they are familiar with its accomplishments. In a recent number of the *Youth and Community Bulletin* the question is asked, "How healthy is our Youth?" The answer is found in an analysis of some 10,000 examinations made of youth employed in the NYA out-of-school program, these examinations covering some 21 states. It is found that about nine out of ten of this group have some

disabling defect, a defect that is, however, remediable. One out of ten stated that he never had been to a dentist, while about 18% never had consulted a physician; 72% needed dental care, and 15% needed the services of an ophthalmologist. Treatment for venereal diseases was needed by only 2%, and the same figure applied to hookworm infection. About 5% were undernourished, while 3% had organic heart disease. The picture seems not so dark after all, and the NYA heads are optimistic about the outlook. This group "plays ball" with the medical profession; let's join them in the games; let's do our part toward remedying these defects in our youth!

"Public Relations" has come to be a most important thing in the economics of a nation and its people. Big business has discarded the notion that "the public be damned" is good business policy, and huge sums are annually expended in the furtherance of congenial relations with Mr. and Mrs. John Q. Public. The Better Business Bureaus of the country long ago realized this fact, and much of their effort in recent years has been put forth along these lines. A year ago the Indianapolis Better Business Bureau was cited as having produced the best Public Relations program for 1928. Now come the tidings that again, in 1940, this Bureau led the nation in this important field. Much of the credit for this achievement, of course, must be given to Toner W. Overley, the manager of the Bureau.

What next? First, the women folk marched side by side with the stronger sex to the polls; later, they took over the barber shops; then they took up cigarettes, in some communities rivaling the men in their consumption. We had begun to believe that their season of conquest was over and that what few privileges were left to the men might remain their property, but now another menace appears in the offing. According to an official report from the Department of Conservation, 187,000 fishing licenses were issued to Indiana women as of July 1st, an increase of 50,000 over the same period in 1940. Somehow that seems like a lot of women to be cluttering up our favorite fishing haunts. True it is that the department furnishes more fish every year, but the available fishing spots do not increase materially in area.

The *Erie Railroad Magazine* for May presents the following comment on automotive accidents, stressing the fact that Indiana is not doing so well in the matter of prevention of auto-train collisions:

> Reckless motorists are again on the increase. Automobile accidents at railroad crossings of the Erie increased seventeen per cent in 1940 over the previous year and the number of drivers who crashed into the side of trains caused 29 per cent of all the accidents.
>
> Of all the accidents last year, 134 or 70 per cent occurred at grade crossings protected by scientific and modern signaling devices for the protection of the motorists, such as flasher lights, wig-wags, alarm bells, gates and posted human watchmen. In spite of these warnings urging automobile drivers to stop, look and listen before entering upon a railroad track, the figures show that 10 of the accidents were caused by automobiles running through lowered gates and that 59 of them, or 31 per cent were caused by the drivers disregarding the watchman's signal.

An Indianapolis citizen writes a "Vox Pop" letter to his favorite newspaper, advocating the enactment of a federal law which will compel physicians to write their prescriptions in English rather than in Latin. His letter makes his point clear; it is that if he can intelligently read the prescription, he can walk into a drug store and make an over-the-counter purchase. Even Congress, which these days does such inexplicable things, would not seriously contemplate such a measure. As it is now, too often our patients undertake to interpret the prescription which their physician gives them—and all too often the druggist plays his role in such an unholy alliance.

A few years back we rather often received via the mails a package of something or other, for which the sender quaintly advised that remittance should be made even though the contents were unordered. For quite some time a selection of neckties was the favorite of these promoters. The last time we received such an assortment of the "latest Parisian models," we had quite a bit of fun with the sender, since we refused to remit for them or to bother about returning the ties—we suggested that he call for 'em. Not long ago we received some book matches from some sort of a relief organization down in New York. Again we looked into "our rights" in the matter and found the following:

> The recipient is under no obligation to answer the communication accompanying such a package.
>
> He does not need to pay for same.
>
> He need not communicate with the sender.
>
> The sender has the right to call for the package. Storage may be charged.
>
> The recipient cannot use the contents of the package until after a "reasonable time" has elapsed.

The obvious way to handle such matters is to put

the package away and let the sender do the worrying.

The Medical Issue—On Friday, April 4, a Federal Grand Jury in Washington, D. C., found The American Medical Association guilty of "a criminal conspiracy to restrain trade." The decision has been appealed, and it is estimated that at least two years will pass before the final word is said by the Supreme Court. In the meantime, every citizen is vitally concerned with the issues at stake.

The principal issue is simply this: The right of physicians to control and influence the qualifications of hospital staffs, and to determine education and ethical standards for the rendering of medical care. That is a matter which has to do with the health and physical well being of us all. Here in the United States, the quality of medical care has reached a level unequaled anywhere else in the world. Here in the United States, the average doctor is far better qualified to treat the sick than his counterpart in any other country. Here in the United States, the finest type of medical care is available to rich and poor alike. Here in the United States, astounding progress has been made by the medical fraternity in fighting the great scourges of mankind.

That has been the product of the American medical system. It is a system whereby the medical fraternity itself has had the basic right to control the training of interns, to establish standards of qualifications, and to see to it that the men who staff hospitals are able to properly care for the patients that come to them.

Those rights have been considered essential to the safe-guarding of the public.

Is the medical profession to be forced to discard systems of ethics, codes of conduct, and standards of qualifications which have grown through the years in response to public need? That is the grave question which this case raises.—*Flora, Ind., Press, May 30, 1941.*

According to the Bulletin of the Indianapolis Better Business Bureau, the Lydia E. Pinkham Medicine Company of Lynn, Massachusetts, has stipulated with the Federal Trade Commission that it will cease and desist from representing, directly or by implication, that its products (Lydia E. Pinkham's Vegetable Compounds and Lydia E. Pinkham's Vegetable Compound Tablets) benefit or are an effective remedy for female functional disorders, menstrual aberrations or menopause, in excess of relief of symptoms associated with and caused by menstrual aberrations and symptoms associated with and caused by menopause, and as a uterine sedative; that either product is of benefit for any symptoms, ailments or conditions that are due to organic disease; that either product will overcome melancholia, act as an aphrodisiac or enhance the attractiveness of the user; that either product is a general system tonic; that either product will afford permanent relief from nervousness; or that the products are fully identical in purpose and effect. The company further agrees that whenever reference is made to the brand name of the tablets in advertising, it will state, in direct connection therewith, in appropriate terms, that the product contains added iron. The company has further agreed not to publish or cause to be published any testimonial containing any representation contrary to the foregoing agreement. Somehow we doubt that all this will have any great effect upon the sales of Lydia E. Pinkham's compounds, but its users no longer will be misled; from here on they will be just plain suckers who rely on grandma's advice rather than the family doctor's.

The doctor-in-a-small-town problem is a very acute one. While it is true that many of our recent graduates elect to start practice in a country community, there is the ever-present beckoning of the large city. The other day we came across a comment on the situation entitled "What Will Be the Outcome of Medical Aid in the Future?" in a small-town weekly, the Millersburg *Echo*:

"With the government conscripting medical students upon graduation from college, and statistics show that the medical students to graduate from Indiana Medical college in 10 years was 1,261, while the mortality rate among doctors in the same length of time was 1,231, and with the steady increase in population, what will the medical situation be in the future?

"The large cities, with hospital facilities, offer medical graduates better opportunities than do the smaller towns. In many small towns where there is no doctor, patrons are required to drive 15 or 20 miles for medical aid, no hospital service or ambulance within that radius, and no possibilities of a young doctor locating there.

"Millersburg is fortunate in having a doctor, and ambulance service within a short time. Will we be able to hold our doctor, who has had several enticing offers to go to larger cities? It all depends upon the cooperation of the people.

"Doctors are not turned out on the assembly line as are automobiles. It requires from seven to nine years college work from 12 to 20 hours a day for classes and preparing lessons, and thousands of dollars expense for a medical student to finish college.

"What inducement is there for a high school graduate to enter medical college and spend the best 10 years of his life slaving over books, upon graduation go out in some small community and be subject to call 24 hours a day and seven days per week. With all the big city attractions and better working hours, a small town doctor is making a big sacrifice of his own pleasures for the good he can do humanity."

President's Page

Dear Doctor:

There seems to be some confusion in regard to the deferment of medical students by the draft boards. You who are examiners for these boards can help in seeing that medical students get the proper consideration due them. It is also apparent that the doctors who are in the service will not be released at the end of one year of service. The supply of doctors must be kept at peak production for many communities are now asking for physicians.

I have just received a letter from the Association of Military Surgeons of the United States extending an invitation to all physicians in Indiana to attend their meeting in Louisville, Kentucky, October 29th to November 1st, inclusive.

The American Youth Congress at its meeting this month passed a resolution that it would continue to work for a "Federal Health Program."

Nutrition still seems to be a popular subject. It is now suggested that one go to the grocery and buy a basket of food that will contain all the food values and vitamins needed each day. The price and size of the basket will vary to meet the family needs and the pocketbook.

Has your wife joined the League of Women Voters? Has she attended their meetings? Have you helped her in getting the answers to the questions they are studying concerning socialized medicine? If you haven't done your part, then don't say you haven't been informed about the subject.

Remember to take a vacation and that the Indiana State Medical Association meets in Indianapolis on September 23, 24, and 25, 1941.

Very truly yours,

POLIOMYELITIS

Dear Editor:

The following information is published in brochure form by the Division of Services for Crippled Children of the Indiana State Department of Public Welfare in anticipation of a poliomyelitis epidemic in Indiana. The purpose of this publication is to inform patients, doctors, health officers, and nurses of the services that will be made available to these afflicted children.

A liberal supply of these brochures will be available from the state offices of the Indiana State Department of Public Welfare, the secretaries of county medical societies, the county health officers, the county departments of public welfare, and the central office of the Indiana State Medical Association.

Sincerely yours,

Howard B. Mettel, M.D.,
Acting Director,
Division of Services for
Crippled Children,
Indiana Department of Public Welfare.

BROCHURE ON POLIOMYELITIS

A. General Statement of Problem

In anticipation of a poliomyelitis epidemic in Indiana during the summer of 1941, the Division of Services for Crippled Children of the State Department of Public Welfare is in a position to supplement local health services through consultation by members of the nursing, physical therapy, and medical social staffs, as well as by making available the services of medical consultants. In order that these services may be utilized and function more effectively, this brochure has been prepared.

Health authorities who have dealt with epidemics in other parts of the country have reported that these epidemics have followed a definite sequence; in states which have previously been free from the disease in epidemic form the number of reported cases in the first year is small; the second year it becomes definitely epidemic in form with the peak being reached in the third year.

In Indiana starting in September and extending through November, 1939, there were 29 cases of poliomyelitis reported in Lake County. In 1940 the first cases were reported about the middle of June and continued to be reported through the balance of the year. In all, there were more than 700 cases reported from nearly all counties in the state —with the greatest number concentrated in St. Joseph, Elkhart, and Marshall Counties. With the possibility that the experience in Indiana will be similar to that of other states, it is the opinion of epidemiologists that poliomyelitis in epidemic form is probable for 1941 in Indiana—especially in those counties where only a few cases were reported during 1940, since these counties would not have acquired an immunity.

B. Advantages of Home Care During the Acute Stage of Poliomyelitis.

It is the consensus of medical opinion that it will be definitely advantageous to the patient to be cared for in his own home during the acute stage of the disease because of the dangers involved in transportation and the limitation of hospital facilities for the care of poliomyelitis cases.

Early treatment should start as soon as poliomyelitis is suspected. During an epidemic every sick person should be regarded as a potential poliomyelitis case until such a diagnosis has been definitely ruled out. As a precautionary measure such individuals should be placed in bed and muscle protection instituted to prevent further damage to already involved cord and nerve cells.

This early treatment usually consists of making a firm bed and placing the patient in a position of physiological rest which can be maintained by the use of restraints, splints or casts. To assist in maintaining physiological rest or so-called neutral position, a fabric splint has been devised and is very helpful in controlling activity. It should be understood, however, that these fabric splints are for temporary use only and are not expected to take the place of a more adequate support where this is necessary. Fabric splints are available from offices of district health departments and all county departments of public welfare. Instructions regarding their use and application are included with each set. Where a greater degree of immobilization is desired, Toronto splints and Bradford frames (made available by The National Foundation for Infantile Paralysis, Inc.) may be obtained by contacting Division of Services for Crippled Children, State Department of Public Welfare.

To assist the doctor and the family, public health, private duty, and hospital nurses have received instruction in orthopedic nursing procedures and in the application of splints. On request, the field staff is available to supplement these instructions and to assist nurses in carrying out orthopedic nursing procedures. Further advantages to be considered in favor of home care are:

1. Many patients can be adequately cared for in the home if given medical and nursing supervision during the acute stage.
2. Assumption of responsibility during the acute stage of the disease by the family makes unnecessary later adjustment in the social life of both the patient and the family.

C. Indications for Hospital Care.

Cases where care in a hospital is definitely indicated would include those requiring special treatment such as:

1. Bulbar or respiratory types.
2. Cases with involvement requiring extensive apparatus and intensive nursing care which requires a special knowledge of orthopedic nursing procedures.
3. Cases living in homes where conditions are not conducive to treatment because of:
   a. Lack of responsible person in home to teach the carrying out of medical recommendations and nursing procedures.
   b. Existing social conditions such as overcrowding, impossibility of carrying out isolation techniques or mother over-burdened with responsibilities.

When transportation to a hospital becomes necessary the patient should be placed on a hard frame surface (preferably made of boards which extend the full length and width of the patient) and placed in a neutral position. Splints should be used to maintain this position. The speed of the vehicle in which the patient is being transported should not exceed 20 to 25 miles per hour and this precaution should be maintained even on the smoothest roadways.

D. Services Available Through Division of Services for Crippled Children.

1. *Consultation Service.* The services of a consultant will be available to assist local physicians in diagnosing or recommending treatment on suspected cases of poliomyelitis under the age of twenty-one years. The physician requesting such service must be willing to prepare a statement to the effect that the family of the patient is unable to defray the expense of such consultation.

The service of a consultant may be obtained in the following manner: For those counties in the South Bend area, phone or wire request to Crippled Children's Services, State Department of Public Welfare, Children's Dispensary, South Bend, Indiana; in those counties served by the Fort Wayne Medical Center, the request for such services should be made to Crippled Children's Division, State Department of Public Welfare, St. Joseph Hospital, Fort Wayne, Indiana; request for such service from elsewhere in the state should be made to the Crippled Children's Division, State Department of Public Welfare, 141 South Meridian Street, Indianapolis, Indiana.

2. *Orthopedic Nursing Service.*

   In Counties With a Nursing Service.

   On request and with the sanction of the attending physician, the orthopedic nurse will make home visits with the local nurse to assist her in teaching the family.

   a. Bed rest with protestion of muscles, of trunk, and extremities.
      (1) Firm bed with boards between spring and mattress.
      (2) Neutral position to protect muscles from over-stretching through the use of improvised support and restraints to maintain neutral position.
      (3) How to make and use improvised equipment.
   b. Maintenance of a position of protection when
      (1) Apparatus is taken off
      (2) Giving bedside care
      (3) Changing the position of the patient.
   c. On request demonstrations of orthopedic nursing procedures to small groups of nurses.

   In Counties Without a Nursing Service.

   With the sanction of the attending physician, the state orthopedic nurses will make home visits to teach the families the above procedures.

3. *Physical Therapy Services.*

   Upon the request of the attending physician, the services of a physical therapist will be made available. Such service will consist of:

   a. During Acute Stage.
      (1) Muscle Examination. Superficial examination in acute cases to help determine necessary splinting.
   b. During Convalescent Stage.
      (1) Complete muscle examination following acute stage to determine extent of resulting paralysis and for basis of treatment by muscle re-education during the convalescent stage.

   Any request for further consultation on muscle examinations, exercises, and massage again must come from the family physician.

   For this service we have available a staff of four physical therapists, who will give a limited amount of consultation service on:

   a. Teaching of exercises and massage to person responsible for the care of patient in the home.
   b. Teaching of exercises and massage to public health nurses for future follow-up care.

   However, it is to be remembered that responsibility for carrying out exercises and massage must rest with the family physician.

4. *Medical Social Services.*

   Medical social services will be available for patients hospitalized in the Fort Wayne Medical Center, South Bend Medical Center, and Riley Hospital Center when, for a social reason, treatment is being hampered.

E. Local Facilities to be Utilized.

If treatment during the acute stage cannot be carried out in a home, for any of the reasons outlined in C 3, or for any other, and if delay is not medically contra-indicated, the local departments of public welfare can be called and will advise how best the problem can be met through local facilities.

F. Convalescent Period.

As a safe-guard against deformities occurring due to an undetected muscle weakness which might show up following activity or over activity, it is advisable to have the patient kept under medical supervision for at least six months following the resumption of normal activity.

PRELIMINARY PROGRAM OF ANNUAL CONVENTION

INDIANA STATE MEDICAL ASSOCIATION

September 23, 24, and 25, 1941, Indianapolis

TUESDAY, SEPTEMBER 23, 1941

Morning

8:00 a.m.—Registration, Riley Room, Claypool Hotel
Opening of commercial exhibit, Riley Room, Claypool Hotel
Opening of scientific exhibits, mezzanine floor, Claypool Hotel

9:00 a.m.—Annual golf tournament.

Afternoon

12:15 p.m.—Golfer's luncheon
Trap shooters' luncheon

12:30 p.m.—Council meeting

1:00 p.m.—Annual trap shoot

4:00 p.m.—Meeting of House of Delegates

Evening

6:30 p.m.—Annual dinner meeting, women physicians

7:00 p.m.—Smoker and stag party
Theater party or other entertainment for women

WEDNESDAY, SEPTEMBER 24, 1941

Morning

8:00 a.m.—Registration continues; commercial and scientific exhibits open all day.

General Meeting—Indiana Ballroom

9:00 a.m.—Call to order by A. M. Mitchell, M.D., Terre Haute, president, Indiana State Medical Association

9:10 a.m.—Greetings and introduction of officials of Indianapolis Medical Society
Official welcome by local society

9:15 a.m.—President's address (A. M. Mitchell, M.D.)

9:30 a.m.—LOUIS HOPEWELL BAUER, M.D., Editor of *The Journal of Aviation Medicine*, Hempstead, N. Y.
Subject: "Aviation Medicine"

10:00 a.m.—J. PEERMAN NESSELROD, M.D., Evanston, Illinois
Subject: "Rectal and Lower Sigmoid Diseases." (Colored motion pictures)

10:30 a.m.—RICHARD B. CATTELL, M.D., Boston
Subject: "Surgery of the Colon"

11:00 a.m.—JAMES P. LEAKE, M.D., U. S. Public Health Service Bureau, Washington, D. C.
Subject: "Poliomyelitis"

11:30 a.m.—RALPH PEMBERTON, M.D., Philadelphia, Pa.
Subject: "Arthritis"

12:15 p.m.—Fraternity, class and ex-service men's luncheons and get-togethers

Afternoon

Section Meetings.

Evening

7:15 p.m.—Annual banquet, Scottish Rite Cathedral
FRED RANKIN, M.D., president-elect, American Medical Association, Lexington, Ky.
DR. JAMES R. ANGELL, New Haven, Conn.

THURSDAY, SEPTEMBER 25, 1941

7:00 a.m.—House of Delegates breakfast meeting. Annual election of officers and selection of convention city for 1942.
Meeting of Council immediately following adjournment of House of Delegates.

General Meeting—Indiana Ballroom

9:00 a.m.—WILLIAM D. PROVINCE, M.D., New York
Subject: "Chemotherapy"

9:30 a.m.—CHARLES MAZER, M.D., Philadelphia, Pa.
Subject: "Endocrine Treatment in General Practice"

10:00 a.m.—C. D. SELBY, M.D., Detroit, Michigan
Subject: "Industrial Health"

10:30 a.m.—JOHN J. MOORHEAD, M.D., Professor of Clinical Surgery, New York Post-Graduate Medical School, Columbia University, New York City
Subject: "Essentials in Fracture Treatment" (Lantern slides)

11:00 a.m.—FRED M. SMITH, M.D., Professor of Theory and Practice, State University of Iowa College of Medicine, Iowa City, Iowa
Subject: "The Management of the Patient with Coronary Disease"

TWENTY-FIVE YEARS AGO

From THE JOURNAL pages, August, 1916 issue

"Benzol in the Treatment of Leukemia" was discussed by J. M. Barry and Jane Ketcham, Indianapolis; "Diagnosis and Treatment of Sterility," by P. E. McCown, Indianapolis; "Infections of the Respiratory Tract," by V. H. Moon and S. C. Summers, Indianapolis; "Some Considerations in Pelvic Floor Work in Women," by W. H. Baker, South Bend.

* * *

Editorially, discussions were given on Infantile Paralysis, Hay Fever, the American Medical Association Scientific Exhibit, and James Whitcomb Riley, who had just died.

* * *

Dr. George F. Keiper, Lafayette, had been elected as fourth vice-president of the American Medical Association.

* * *

Comment was made on the new edition of the American Medical Directory which had just been published.

* * *

The annual meeting of the Indiana State Medical Association was to be held in Fort Wayne, September 27-29.

* * *

Anti-vaccinationists, *et al*, found little comfort in the pronouncement from Germany to the effect that epidemics in Germany were literally unknown due to protective measures instituted there.

* * *

The numerous "diploma mills" in Illinois, plus one or two in Indiana, came in for a denouncement at the hands of the trenchant pen of Dr. Bulson.

* * *

The American Medical Association Meeting had been held at Detroit. An outstanding feature of this session was the inauguration of the House of Delegates. Dr. Hubert Work of Pueblo, Colorado, was named as the first Speaker of the House.

* * *

In the death notices were listed the names of Dr. Frederick Charlton and Edward F. Hodges, both of Indianapolis. The former was connected with the Genito-urinary Department of the Indiana University School of Medicine; the latter was the head of the Department of Obstetrics. Each of these men added much to the medical history of Indiana.

* * *

Dr. and Mrs. Edgar F. Kiser had returned from an extended trip to the Northwest.

Dr. and Mrs. J. N. Hurty had spent some time at his Michigan summer home.

* * *

Dr. William F. Clevenger announced the removal of his office to the Hume-Mansur Building.

* * *

Major Larue F. Carter and Miss Anna May Gant had married just prior to Dr. Carter's leaving for the border.

* * *

The cornerstone for Sunnyside had recently been laid.

* * *

Columbus physicians had announced that during July and August their offices would be closed after six p. m.

* * *

Dr. Norman E. Jobes had been appointed medical examiner for the National Guard.

* * *

On July seventh, the Indiana State Board of Health had abandoned the use of the public drinking cup.

* * *

Dr. Bernard Ravdin and Miss Henrietta Meyer were married on July eighteenth.

* * *

Dr. B. W. Egan, after a protracted post-graduate course in eastern cities, had returned to Logansport and limited his practice to the eye, ear, nose and throat.

* * *

Hancock physicians had announced a fee bill, also had declared that "deadbeats" no longer could impose on the medical profession of that community.

* * *

According to the State Board of Health, the northern third of Indiana had the highest death rate and the southern third the lowest rate.

* * *

Dr. John B. Murphy, once known as the "stormy petrel of American surgery," had died at his Mackinac summer home.

* * *

The Mississippi Valley Medical Association held its annual meeting in Indianapolis, October 10-12. Dr. Albert E. Sterne was in charge of the general arrangements.

* * *

Dr. Joseph Rilus Eastman, who while engaged in war service was on his way to Austria with six surgeons and six nurses to take charge of a hospital of five hundred or more beds, had reported interesting as well as dangerous experiences before reaching his destination.

VOICE OF MEDICINE

DOCTOR'S DOCTOR

A lawyer's lawyer is a legal consultant whose information is so comprehensive and conclusive that he can charge enormous fees for one opinion. A doctor's doctor is far different, in that he is asked to assume the responsibilities of life and death in treating doctors' families, and rarely if ever receives any compensation in a monetary way. Illness in a doctor's family is not infrequently of more consequence than such occasions in the family of a layman. Several factors account for this. One is the reluctance of the family to abide by the suggestion of the head of the house, and another is the feeling that to call another M.D. is an admission of lack of skill or knowledge in the husband or father. But another reason is frequently to be considered, and that is our time-honored custom of giving our skill and our service as a gratuity, and accepting a greater degree of responsibility than we would feel with an ordinary patient. Knowing this, we often hesitate or delay a needed consultation and may overlook some sign or symptom of grave significance. In every community, for an indefinite time, certain physicians are honored by their medical friends as family consultants, as a fitting tribute to their conscientious endeavors. We well remember the responsibilities carried for a time in the care of friends and their families. Their illnesses were the same as those of other people, of course, and some of them gave us endless worry. One was a physician with myocarditis, another one with arthritis, and a doctor's son with a specific rheumatism. The wife of one of our wealthiest physicians had a fractured hip; they had no children, and she was noted for her stinginess. On Christmas after her recovery they sent me a check for thirty dollars, the only fee ever paid me by any physician. A fifty thousand dollar estate was divided up among cousins several years later.

Doctors' wives get sick of their husbands and doctors' daughters get sick because they have none, just like other folks. Two unnecessary tragedies were cases of ruptured appendicitis in physicians. One was ill a week and said he knew he had an appendicitis from the first, but since it was his first attack he hoped to get by without an operation. Drainage was followed by an obstruction and a second operation, then a fecal fistula and a lingering illness from which he finally died. The other M.D. had occasional attacks of renal colic. His regular physician was out of the city when he had an attack which he thought was the same as those before. He called another friend to give him relief without verifying his own diagnosis. Three days later he had a peritonitis and a distinguished surgeon was called who found a hopeless condition. The first doctor made the correct diagnosis but refused to avail himself of advice he had given many others. The second made a mistaken diagnosis and was beyond help when a thorough investigation of history and signs and symptoms was made.

In our experience, doctors' wives in general have more stability than do ordinary patients and are more grateful for our service. It would be well for all of us to remember that, "the most famous medical man that America has produced was not a specialist, never discovered a new germ, synthesized a new chemical or invented a new gadget." Osler gave *himself* to his profession. One doctor's wife told us she thought that any girl that married a medical man should do so with one reservation—that she would have the right to choose her own physician and consult him as other women had the right to do. That is really something worth while thinking about! Their association with medical men destroys any hallucinations concerning our infallibility. One thing a doctor's wife never seems to understand is that there are intangible returns from our work that are far greater than the value of the checks we receive. There have been patients who come to us, homes that we have visited and patients we have seen, who gave us more in each consultation than we gave to them. If we inspired confidence, they gave us an inspiration of *faith in ourselves and in humanity.*

M. A. Austin, M.D.,
Asbestos Archives 1-15-41

PREMARITAL BLOOD EXAMINATIONS

July 11, 1941.

Dear Editor:

I am enclosing a letter which has been sent to all the laboratories approved by the Indiana State Board of Health for the serological examination of bloods for the Premarital Act. I had thought that this resolution was quite clear, but already we have had the question asked as to what constituted a lapse of twenty-four hours. Our meaning is this—that twenty-four hours should elapse between the receipt of the sample by the laboratory and the receipt of the results by the applicant. It does not mean that the laboratory must hold up sending out the results of their examination until twenty-four hours have elapsed from the time they received it. In other words, if the laboratory receives the blood at 9:00 a. m., they can mail the results out that afternoon and they will be received by the physician in the next morning's mail which would constitute a lapse of twenty-four hours.

The laboratories may use railroad schedules or postal schedules in computing the time which the sample may be held, thus if a sample is received at 9:00 a.m. and it takes ten hours by mail schedules

for the results to reach the physician the card may be mailed out at 7:00 p.m. Such a ruling places the burden upon the laboratory, but if an effort is made to comply with the terms of this resolution no action will be taken by the Board.

Very truly yours,
John W. Ferree, M.D., *Director*
Indiana State Board of Health

The letter follows:

July 10, 1941.

TO: ALL LABORATORIES APPROVED BY THE INDIANA STATE BOARD OF HEALTH

The Indiana State Board of Health, in conjunction with the Pathology Department of the Indiana University School of Medicine, at a regular meeting held Tuesday, June 24, 1941, adopted the following resolution, which, it is believed, is self-explanatory:

> "Be it resolved that all approved laboratories in the State of Indiana be notified that in order to establish a minimum standard for returning the results of serological examinations for syphilis to applicants or to physicians that the Board hereby adopt a standard that no such results shall be returned on samples of blood tested until a lapse of twenty-four hours from the time of the receipt of the sample. That violation of this resolution shall subject the laboratory to the loss of the approval by the State Board of Health."

This resolution was passed in order that we might have in Indiana a uniform interpretation as to what constituted the minimum waiting period we feel was intended by Chapter 100, of the Acts of 1939.

If there are any questions regarding this matter, please don't hesitate to let us know. You may be assured that the sole purpose of this resolution was to make for the most effective operation of the premarital law.

Yours very truly,
John W. Ferree, M.D., *Director*
Indiana State Board of Health

POSTGRADUATE COURSES IN OBSTETRICS

WILL BE RESUMED IN FALL. THE FOUR COURSES OF TWO WEEKS EACH WILL BE HELD ON THE FOLLOWING DATES:

1. October 13-25, 1941
2. January 12-24, 1942
3. April 13-25, 1942
4. July 13-25, 1942

Reservations will be limited. Apply at early date to Dr. Carl P. Huber, Associate Professor Obstetrics, Indiana University School of Medicine, Indianapolis, Indiana.

UNDER THE CAPITOL DOME

SANITARY PROBLEMS

By and large the bigger population centers in Indiana which are receiving an influx of new population as a result of employment in defense industries are absorbing the increase well, but nevertheless are facing some difficult environmental sanitation problems, according to Dr. John W. Ferree, secretary of the Indiana State Board of Health.

In these larger population centers, the health problems are housing problems, the Health Board official pointed out.

The swelling population has produced a tendency toward suburban growth. New suburban districts are flanking the larger towns. Many of these districts are, like Topsy, just growing. Adequate planning for health is lacking in many instances.

Dr. Ferree and Dr. George M. Brothers, director of the Bureau of Local Health Administration in the Board of Health, point out that the suburban growth indicates clearly the need of county planning because of the necessity of enforcing certain minimum health standards, particularly as relating to excreta disposal and stream pollution. A healthful water supply, they pointed out, depends upon proper methods of excreta disposal and upon keeping neighborhood streams unpolluted.

Recreation facilities, which also are important from a community health point of view, also are being neglected in most of the mushroom growth suburban communities.

As it stands today, Dr. Ferree and Dr. Brothers pointed out, Indiana counties lack the official and legal set-ups to enforce building and sanitation codes in suburban areas. Most county health departments are inadequate in personnel to do the necessary inspections and to enforce desirable sanitation requirements on a scale big enough to meet the rapid growth of these areas.

The Indiana State Board of Health has received personnel assistance to aid in problems arising from the defense program. Dr. Hugh L. C. Wilkerson has been assigned by the Public Health Service of the United States to the central state office to assist in the development of a venereal disease program as well as a general health program throughout the state, but particularly in those areas where armed forces and industrial workers are concentrating. The Public Health Service also has assigned, at the request of the Indiana State Board of Health, Dr. Maurice Kamp and Joseph R. Clark, an engineer, to work in the Charlestown area. Dr. Kamp and Mr. Clark are working with the district health department in New Albany. Dr. Ferree explained that these men who were assigned here by the Federal government become part of the State

Board of Health personnel and work just like any other employee of the state department.

"They simply augment the staff at New Albany to take care of health problems introduced by changes, character, and number of population brought about by expansion of industry," Dr. Ferree said. He pointed out that these problems are chiefly housing and environmental sanitation problems.

The Charlestown area, the state health board officials say, presents by far the biggest health problem brought about by the defense program. Despite the fact that the area changed overnight from a rural to an industrial status, there has been no abnormal amount of communicable disease. Doctors in the area do not report any more venereal disease than previously, and Dr. Ferree said it is doubtful if there has been any big increase in these diseases.

One of the chief environmental sanitation problems of the area is being presented by trailer camps in which many of the workers and their families live. There are approximately sixty trailer camps in Clark county, twenty-six of them in Charlestown. Of this total, forty-nine of the camps are licensed, thus assured of being properly operated.

Dr. Ferree said there is still a gradual increase in the trailer population in the area. The trailerites are displaying a tendency, during the summer, to move out into the country looking for shade instead of sanitation.

Health activities in the Charlestown area are under the direction of Dr. C. K. Kincaid, director of the Clark county health department.

Dr. John D. Winebrenner of Muncie has been made district health officer for the Indiana State Board of Health at Princeton. He replaces Dr. Wallace E. Childs who left last April for active duty in the United States Army Medical Corps. He was assigned to Fort Knox, Ky. Dr. Winebrenner spent last year at the University of Michigan where he received a Master's degree in public health. He previously was in residency at the City Hospital of Indianapolis.

Licenses of three drugless physicians and one medical doctor were revoked by the Indiana State Board of Medical Registration and Examination at its meeting in Indianapolis on July 8.

Those whose licenses were revoked were: John R. Scherer of Indianapolis, naturopath; William E. Davis, also of Indianapolis, licensed in chiropractic and naturopathy; Verne T. DeVille, of Indianapolis, chiropractor, and Dr. Elliott E. Bell of Fort Wayne. Dr. Bell's revocation followed a conviction on charge of performing a criminal operation.

The Indiana State Board of Medical Registration and Examination will hold a meeting in the Hotel Lincoln in Indianapolis on August 28, Miss Ruth V. Kirk, executive secretary, has announced.

Deaths

James Alexander Craig, M.D., Gary surgeon, died July second, after a year's illness. Dr. Craig was sixty-one years old. After practicing eighteen years, Dr. Craig had retired from his surgical work because of his illness. He had come to Gary in 1908 after completing his studies at the University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore. He served as a captain in the medical corps of the Army during the first world war, and was one of a group of twenty doctors who founded the old Gary General Hospital in 1911. Dr. Craig was a member of the Lake County Medical Society, and of the Indiana State Medical Association and was a Fellow of the American Medical Association and a Fellow of the American College of Surgeons.

* * *

Sherman S. Frazier, M.D., of Angola, died at his home there, June tenth. Dr. Frazier was seventy-six years old and recently had celebrated his fiftieth year in the practice of medicine. He had served for many years as secretary of the Steuben County Medical Society, and was an honorary member of the Indiana State Medical Association and a Fellow of the American Medical Association. He graduated from the Fort Wayne College of Medicine, Fort Wayne, in 1891.

* * *

Ambrose M. Mayfield, M.D., of Montmorenci, died June twenty-sixth, aged seventy-one years. Dr. Mayfield had practiced forty-one years. He graduated from the Kentucky School of Medicine, Louisville, in 1894.

* * *

Ernest Franz, M.D., of Berne, died June twenty-seventh, aged seventy-six years. He had practiced in the vicinity of Berne for forty-eight years. Dr. Franz graduated from the Hahnemann Medical College and Hospital, Chicago, in 1893, and gave special attention to ophthalmology and otolaryngology in his practice. He was an honorary member of the Adams County Medical Society and of the Indiana State Medical Association.

* * *

J. L. Webster Peck, M.D., of Frankton, died July seventh, aged seventy-one years, after a short illness. Dr. Peck had practiced medicine in Madison county for forty-seven years, including several years in Anderson. Dr. Peck graduated from DePauw University in 1891 and from the Physio-Medical College of Indiana, Indianapolis, in 1895. He was for many years a member of the Madison County Medical Society, the Indiana State Medical Association and the American Medical Association.

News Notes

Dr. Mier Bizer has announced the opening of an office in the Volgt Building at Jeffersonville.

* * *

Dr. C. P. Widmeyer, of Columbus, Ohio, is now associated with Dr. A. B. Scales in Oakland City.

* * *

Dr. M. H. Omstead has moved from Monroe City to Petersburg where he has established a medical practice.

* * *

Dr. John M. Engle has opened an office for general practice in Portland.

* * *

Dr. Wendell Covalt of Muncie and Miss Ruth Pearson of Winamac were married June twenty-first in Indianapolis.

* * *

Dr. Robert E. Peck of Detroit and Dr. George Scott of Frankfort have joined the staff of Longcliff Hospital at Logansport.

* * *

The International College of Surgeons will meet in Mexico City August tenth to fourteenth at the invitation of the Mexican Government.

* * *

Dr. J. J. Westra, formerly of Owatonna, Minnesota, has recently become associated with the Muncie Clinic.

* * *

The 1941 annual meeting of the National Society for the Prevention of Blindness will be held in New York City, December 4 to 6.

* * *

Dr. John Gibbs, of Valparaiso, and Miss Ruth Price, of Youngstown, Ohio, were united in marriage on June twenty-fifth.

* * *

Dr. L. H. Hopkins has announced the opening of offices in the Decatur County National Bank building at Greensburg, Indiana.

* * *

Dr. Abe Plinsky, of Minneapolis, Minnesota, has assumed the duties as staff physician at the U. S. Veterans Home at Marion.

* * *

Dr. W. Lennis Green of Columbus has moved to Indianapolis where he will be associated with Dr. Thomas B. Noble, Jr.

* * *

Dr. Paul S. Connell has moved from Millersburg to Rensselaer where he will continue his general practice. Dr. Leon H. Chandler has taken Dr. Connell's place in Millersburg.

Dr. Sam Davis and Miss Jane Ireland, of Brazil, were united in marriage at the First Presbyterian Church at Brazil on June twenty-seventh.

* * *

Dr. James G. Shanklin, formerly of Lowell, has removed to Hammond where he will be associated with Dr. W. H. Howard.

* * *

The Eleventh Indiana Councilor District Medical Association has announced that its next meeting will be held in Logansport on Wednesday, October eighth.

* * *

Dr. Paul R. Tindall, Shelbyville, is the president of the National Eclectic Medical Association for the next year. The Association will meet in Cincinnati next year.

* * *

Dr. Charles H. Best has been appointed to succeed the late Sir Frederick Banting as director of the Banting-Best Department of Medical Research of the University of Toronto.

* * *

The Phi Rho Sigma Medical Fraternity held a four day convention at the Spink-Wawasee Hotel, Lake Wawasee, in June. Dr. Jonathan Forman of Columbus, Ohio, editor of the *Ohio State Medical Journal*, was reelected president.

* * *

Physicians of the Madison County Medical Society assisted the Forty and Eight Committee of the Madison County Voiture, No. 510, in an immunization program in which diphtheria immunization was provided for 1,131 children.

* * *

Dr. Robert B. Sanderson, superintendent of Healthwin Hospital at South Bend, has resigned from that position, effective August first. He is to be succeeded by Dr. Edward W. Custer, now assistant medical director of the Hamburg State Sanatorium for Tuberculosis, Hamburg, Pennsylvania.

* * *

Dr. Frederick Apfelbaum of Fort Wayne has been appointed resident physician at the Allen County Infirmary, a newly created post made necessary by the large increase in infirmary patients and the recent opening of the new hospital at that institution.

* * *

The New York Academy of Medicine will hold its Graduate Fortnight October 13 to 24 at the headquarters of the New York Academy of Medicine, 2 East 103 Street, New York. The general subject of this Fortnight is "Cardiovascular Diseases Including Hypertension."

Dr. Russell J. Morrical, of Logansport, and Ina Belle Woodard, of Goodland, were married in the Griggs Memorial Methodist Church at Goodland on June twenty-first. Dr. Morrical has received an appointment as acting assistant surgeon in the United States Navy.

* * *

Dr. Robert E. Neff, superintendent of the University of Iowa Hospital at Iowa City, former administrator of the Indiana University Hospitals, received the only honorary degree awarded by the Iowa State College at their recent commencement when he was given the degree of doctor of laws.

* * *

The next examination of the American Board of Obstetrics and Gynecology will be held in various cities of the United States and Canada on Saturday, January third, 1942, at 2:00 p.m. Any physician who is interested may secure additional information from Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, Pennsylvania.

* * *

The American Congress of Physical Therapy will hold its twentieth annual scientific and clinical session, September 1 to 5 inclusive, 1941, at the Mayflower Hotel, Washington, D. C. Information concerning the seminar and preliminary program may be obtained from the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

* * *

The Center for Continuation Study of the University of Minnesota will offer a three-day course on Health Problems in Industry, August 4, 5, and 6, 1941. The course is recommended for industrial nurses, physicians, and welfare leaders. Registration is two dollars; tuition is five dollars. Registration must be completed by 9 a.m. Monday, August fourth. Accommodations are provided at the Center for those who wish to avail themselves of their use.

* * *

The Subcommittee on Venereal Diseases of the Health and Medical Committee of the National Research Council has recommended the adoption by all medical services of the government of a uniform diagnostic nomenclature for syphilis. The Public Health Service has adopted, with minor revisions, the recommended nomenclature, effective August 1, 1941. Tentative numbers have been assigned this specific nomenclature pending a general revision of the "Nomenclature of Diseases and Conditions."

* * *

PHYSICAL EXAMINATIONS OF SCHOOL EMPLOYEES

The State Board of Health continues to receive numerous inquiries from school employing officials and physicians regarding the interpretation of the recent act requiring physical examination of school employees. The most persistent question received is whether or not an x-ray examination of the chest is to be made in all cases. The Act provides that an x-ray examination of the chest is mandatory.

The State Board of Health reports that there has been a great interest manifested by those who are responsible for compliance with the Act. When it has once been understood that the sole objective of this Act is to prevent the transmission of infection, unqualified cooperation has been the rule.

It should be pointed out again that this examination is not necessary before the beginning of the current school year. A period of one year from the passage of the Act was allowed in order to prevent the confusion of an emergency. This has proved to be a wise provision in that everyone has had an opportunity to consider the matter thoroughly. All school employees should have their physical examination by March 13, 1942.

ADDITIONAL NEWS FROM THE A.M.A. CONVENTION

In reporting the participation of Indiana physicians and groups in the recent Cleveland meeting of the American Medical Association, there was an unintentional omission.

On Thursday, June 5, 1941, a paper was presented before the Section on Dermatology and Syphilology of the A.M.A. by Dr. D. C. Elliott, U.S.P.H.S., on the subject "An Evaluation of the Massive Dose Therapy of Syphilis." This was an effort to compare and contrast the data obtained under the auspices of the Public Health Service in research study centers established in Indianapolis, Detroit, Chicago, Madison, Minneapolis, Des Moines, St. Louis and Cleveland with the experience collected in the original New York City Mt. Sinai Hospital cases. A scientific exhibit on the cases, showing schedules and dosages, charts showing serologic responses, reactions, and therapeutic results by this method as compared to usual methods received a certificate of merit. A list of the contributing members included the Bureau of Venereal Diseases of the Indiana State Board of Health with the Research Ward at the Indianapolis City Hospital which has been a member of the Study Group and a contributor, and has treated the fourth highest number of cases by this method.

CORRECTION

In the list of Indiana Physicians on Active Duty with Uncle Sam, published in the July issue of THE JOURNAL, the name of First Lt. Richard S. Bloomer, of Rockville, was inadvertently omitted. He is now serving as attending surgeon at Camp Knox.

The name of Capt. Glen Ward Lee, Indianapolis, also was mistakenly omitted.

CORRECTION

Dr. William Niles Wishard, Jr., apologizes for the omission of the name of Dr. Henry W. Greist, of Monticello, formerly of Point Barrow, Alaska, in the Wishard Memorial issue as one of the former associates of the late Dr. William Niles Wishard, Senior. This omission was entirely unintentional and resulted from the fact that no printed list had been kept and the names had to be compiled from memory.

INDIANA UNIVERSITY NEWS NOTES

One hundred and forty students have been chosen to enter the Indiana University medical school next fall, Dean W. D. Gatch has announced. These 140 students were chosen from approximately 1,000 initial candidates. The school's regulations providing for not more than six admissions from outside the state and for not more than two of these from any one state reduced to 278 the number who appeared before the selection committee.

The Indiana University school of medicine this year is increasing its entering class by eight per cent to meet national defense needs.

Scholarship attainments in pre-medical work were considered primarily by the selection committee, Dr. Gatch said. Each applicant also was rated on his general aptitude for the study of medicine and on personality, having previously satisfied physical examination and character pre-requisites. Unanimous vote of the twelve-man committee was required in the case of each applicant.

Those chosen for entrance in the I.U. school of medicine this fall are:

Raymond A. Abraham, Evansville; Keith L. Andrews, Clermont; William Balch, Indianapolis; Charles Baran, Jr., Gary; Bruce Barnes, Evansville; Robert Barter, Mount Vernon; Norman E. Beaver, Otterbein; Ruth Berning, Fort Wayne; Robert Bethea, Madison; Elmer Billings, Washington; Angelo Bonaventura, East Chicago; Robert W. Boswell, Evansville; Jack Breithaupt, Richmond; Robert L. Brown, Evansville; Frank W. Bussard, South Bend; Robert N. Chattin, Union City; William G. Clevenger, Brookston; Kenneth Cline, Bremen; William L. Colip, South Bend; Hadley L. Conn, Danville; James R. Cook, Hammond; William Cure, Martinsville; Margaret Davis, Clark's Hill; Richard M. Davis, Marion; Hugh Deale, Michigan City.

Edmunds G. Dimond, Terre Haute; Robert D. Dodd, South Bend; Leland F. Downard, Liberty; Robert Duffner, Fort Wayne; J. Patrick Duffy, Terre Haute; Merrill Eaton, Bloomington; Isidore Edelman, Brooklyn, N. Y.; Otto T. Englehart, Brazil; Ira Faith, Evansville; James Fitzpatrick, Bloomfield; Bernard Flaherty, Indianapolis; Donald Foxworthy, Waldron; Leonard Friedlander, Donora, Pa.; Leo D. Gallagher, Vincennes; Robert L. Gammieri, Indianapolis; Phyllis L. Gill, Bloomington; Russell Gilmore, Michigan City; Frederick Green, Fort Wayne; Edwin Gregg, Indianapolis; Charles Gregory, Fremont; Richard Griffith, Greenfield; Harry Grossnickle, North Manchester; Norman Hasler, Huntingburg; Mrs. Herman Hepner, Bloomington; Frank D. Hogle, Plymouth.

Charles Hollingsworth, Kokomo; Duvall Holmes, Lebanon; Jack Horton, Marion; Preston S. Houk, Portland; Harold Houser, North Liberty; Fred Houston, Franklin; Red Huff, West Lafayette; George Hughes, Indianapolis; Glen W. Irwin, Jr., Roachdale; Robert Jay, Kokomo; Robert E. Jenkins, Noblesville; F. Lamont Jennings, Indianapolis; David Jerram, Anderson; C. Roy Johnson, Indianapolis; David Jones, Indianapolis; Rex Joseph, Indianapolis; Clement E. Kelley, Indianapolis; Robert Kimbrough, Logansport; Norris Knoy, Paragon; John E. Krueger, Gary; Sanford Lawrence, Kokomo; Henry Lebioda, Gary; Robert W. Linnemeier, Hammond; Robert P. Lloyd, Fort Wayne; Harvey D. Lovett, Zionsville.

Harry Ludwick, South Bend; Hugh McAdams, Boswell; Louis C. McAnly, Jr., Indianapolis; Ralph McCoy, Williams; Michael McGrath, Indianapolis; Paul McGuff, West Lafayette; Joseph McKinley, Delphi; Raymond E. Maier, Evansville; Maurice Manalan, Gary; Carolyn Mann, Hammond; Glenn Marshall, Jr., Bloomington; Harold Martin, West Lafayette; Merritt Mauzy, New Paris; Dan Menefee, Sulphur Springs; Richard Minczewski, South Bend; Raymond Morphew, Williamsport; Hascall Muntz, Sylvania, Ohio; Royal Neher, North Manchester; Jerald Noffsinger, Union City; Harry O'Dell, Farmersburg; William Osborn, LaPorte; John Phillips, Butlerville; Samuel Pobanz, Wakarusa; Ronald Price, Mount Vernon; John Reinhard, Jr., Washington, D.C.

Richard Reynolds, Terre Haute; John Ripley, Jr., Milford; Harry Sacks, East Chicago; Arnold Sanders, New York City; William Schecter, Indianapolis; Robert Schmoll, Fort Wayne; Dwight Schuster, Indianapolis; Harold Shonk, Rochester; Earl W. Sidebottom, Rushville; Paul Siebernmorgen, Terre Haute; Penn Skillern, South Bend; Leo M. Smith, Portland; Marsh Smith, West Lafayette; Richard Smith, New Haven; Roger Smith, New Haven; William O. Starks, Indianapolis; Edward Swets, Hammond; Alfred Symmes, Indianapolis; Pierre Talbert, Auburn; Donald Taylor, Wheeler; Harold Tharp, Trafalgar; Frank Thornburg, Muncie; Sherman B. Trotter, Portland; Joe Tuchman, Indianapolis; Robert Tucker, Fountaintown; Wallace Van Den Bosch, Mooresville; Myron Van Dorn, Indianapolis; John C. Vanatta III, Brookston.

George Washington, Gary; Norbert Welch, Indianapolis; George S. Westfall, Goshen; Donald Wharton, Fort Wayne; Clifford Wiethoff, Seymour; William Wiley, Shelbyville; Max Wills, Anderson; Ben Wilson, Jr., Bloomington; Paul Wisenbaugh, North Liberty; Robert Witham, Indianapolis; Cora Zaser, Indianapolis; Louis A. Zuckerman, Paterson, N.J.

Doctors who served as interns in the Indiana University Medical Center last year will be located this year as follows:

Dr. O. Will Allison, Fort McClellan, Anniston, Ala.; Dr. Eugene W. Austin, aviation branch, U.S. Army, Montgomery, Ala.; Dr. Robert Badertscher, Kelly Field, San Antonio, Texas; Dr. Jene R. Bennett, Lowry Field, Denver, Colo.; Dr. George Brown, Indianapolis City Hospital; Dr. Maurice A. Canon, University Hospitals, Cleveland, Ohio; Dr. John N. Carnes, entering military service—not assigned; Dr. Wendell Covalt, research, Indiana University Medical Center; Dr. Richard Dukes, resident in pediatrics, Riley Hospital; Dr. James R. Fant, senior internship in surgery, Starling-Loving Hospital, Columbus, Ohio; Dr. Warren Fischer, instructor in pathology, I.U. Medical Center; Dr. Meredith B. Flanigan, entering military service—not assigned; Dr. John J. Flick, resident in eye, Indiana University Medical Center; Dr. Carl Martz, resident in orthopedics, Riley Hospital; Dr. Harry McClelland, entering military service—not assigned; Dr. Virgil C. McMahan, advanced flying unit, U.S. Army, Houston, Texas; Dr. Roland E. Miller, Dr. Charles W. Morris and Dr. Joseph Mullin, entering military service—not yet assigned; Dr. John F. Spahr, resident, I.U. Medical Center; Dr. John D. Stepleton, resident cardiology, I.U. Medical Center; Dr. Paul V. Thompson, resident in eye, Indianapolis City Hospital; Dr. Dwain N. Walcher, assistant in pediatrics, Yale University, New Haven, Conn.; Dr. Henry Winsauer, entering military service—not assigned as yet; Dr. C. Willard Worth, entering private practice.

Doctors who were I.U. resident physicians have accepted the following appointments:

Dr. Felix Ballenger, Dr. Thomas B. Bauer, Dr. James S. Battersby, and Dr. William F. Montgomery, surgery resident, I.U. Medical Center; Dr. Harry Baum, assistant in department of cardiology; resident in cardiology, I.U. Medical Center; Dr. Donald Caseley, orthopedic resident, Riley Hospital; Dr. Carl S. Culbertson, entering private laboratory practice, South Bend; Dr. Herbert L. Egbert,

entering private practice of surgery, Indianapolis; Dr. Richard Gery, physician at Culver Military Academy; Dr. Bennett B. Harvey, clinical pathology, I.U. Medical Center; Dr. Marietta Houston, University Clinics, Chicago; Dr. Samuel A. Manalan, I.U. Medical Center; Dr. H. H. McClanahan, entering private practice, Columbus, Miss.; Dr. Mary Alice Norris, entering private practice, Indianapolis; Dr. Paul L. Rieth, orthopedic resident, Riley Hospital; Dr. Robert M. Salassa, resident in medicine, I.U. Medical Center; Dr. Maynard C. Shiffer, resident in pediatrics, Riley Hospital; Dr. Ben J. Siebenthal, aviation branch, U.S. Army, Phoenix, Arizona; Dr. Henry S. Tanner, Army Medical Center, Washington, D.C.; Dr. J. Edward Tether, assistant director, I.U. Medical Center; Dr. Julius C. Travis, resident in ear, nose and throat, I.U. Medical Center; Dr. Mary F. Travis, resident in anesthesia, Indianapolis City Hospital; Dr. Robert McC. Vandivier, assistant medical director, I.U. Medical Center; Dr. Charles E. Walters, assistant resident in surgery, I.U. Medical Center; Dr. Frank M. Warder, resident in ear, nose and throat, I.U. Medical Center; Dr. Ralph C. Wilmore, resident in medicine, I.U. Medical Center, and Dr. Marvin F. Hall, resident in radiology, I.U. Medical Center.

Society Reports

NEW OFFICERS

Fourth District Society:

President, O. H. Stewart, M.D., Aurora
Vice-president, Charles F. Overpeck, M.D., Greensburg
Secretary, E. L. Libbert, M.D., Lawrenceburg
Councilor, J. C. Elliott, M.D., Guilford

* * *

Eighth District Society:

President, Samuel Litzenberger, M.D., Anderson
Secretary-treasurer, F. B. Wishard, M. D., Anderson
Councilor, E. H. Clauser, M.D., Muncie

* * *

Ninth District Society:

President, H. B. Gable, M.D., Monticello
Vice-president, H. W. Greist, M.D., Monticello
Secretary-treasurer, John C. Carney, M.D., Monticello

* * *

Muncie Academy of Medicine:

President, Anson G. Hurley, M.D., Muncie
Vice-president, Bruce W. Stocking, M.D., Muncie
Secretary, Robert M. Butterfield, M.D., Muncie
Treasurer, William J. Molley, M.D., Muncie

* * *

LOCAL SOCIETIES

Clay County Medical Society members held a meeting at Benwood Farms, near Brazil, on July first. The evening was devoted to a discussion of the law enacted by the 1941 legislature requiring a physical examination of school teachers, janitors, and bus drivers. The school board officials and the township trustee were guests at this meeting. Venereal disease control was also discussed. Eleven members were in attendance.

Dearborn-Ohio County Medical Society members met at the Dillsboro Sanitarium on June fifth. New officers were elected. Dr. Wm. H. Crawford, D.D.S., dean of Indiana University School of Dentistry, spoke on "Medicine and Dentistry." Twenty-nine members were present.

* * *

Delaware-Blackford County Medical Society members held their annual meeting at the Delaware Country Club, June eighteenth.

* * *

Fort Wayne (Allen County) Medical Society held its annual stag picnic at the Fort Wayne Country Club, June seventeenth. Golf and skeet shooting were planned for the afternoon, and in the evening, after dinner, a series of moving pictures were shown.

* * *

Fountain-Warren County Medical Society met for its regular monthly meeting at Covington, June twelfth; this was a dinner meeting—a fish fry. Guest speaker was Dr. E. B. Mumford of Indianapolis. This was the last meeting of the Society until September.

* * *

Grant County Medical Society met at the U.S. Veterans Hospital in Marion, June twenty-sixth, for a dinner meeting. The program was arranged by staff members of the hospital. A moving picture on "Neurological Diagnosis" was shown. Attendance numbered twenty-one.

* * *

LaPorte County Medical Society members met at the Rumely Hotel in LaPorte, June nineteenth, to hear Dr. P. B. Magnuson of Chicago talk on "The Treatment of Arthritis from the Standpoint of the General Practitioner." Attendance numbered twenty-four.

* * *

Miami County Medical Society held a meeting at the Miami County Hospital, Peru, June twenty-seventh. A moving picture on "Vitamin B Complex Deficiencies" was shown, and that was followed by a business meeting. Ten members were in attendance.

* * *

Pike County Medical Society members met at Petersburg on May ninth. The evening was devoted to a general discussion. Dr. L. R. Miller, of Winslow, was elected secretary-treasurer to fill the unexpired term of Dr. L. M. McNaughton who was called to service. Seven members were present.

At a meeting held at Petersburg on July tenth, Dr. Carl Huber, of Indianapolis, spoke on "Obstetrics." Eight members and four county nurses were in attendance.

* * *

DISTRICT MEETINGS

FOURTH DISTRICT MEDICAL SOCIETY MEETING

Fourth Councilor District members held their thirty-seventh annual meeting at the Batesville

Memorial Building, Batesville, on May twenty-first. A golf tournament was held in the forenoon.

Speakers on the afternoon program were Dr. H. D. McIntyre, of Cincinnati, who spoke on "Tumors of the Central Nervous System," with a discussion conducted by Dr. George May, of Madison; Dr. John Warvel, of Indianapolis, who talked on "Management of Diabetes," discussion led by Dr. P. C. Bentle of Greensburg; Dr. D. H. Row, of Indianapolis, who spoke on "Eye Problems Confronting the General Practitioner," followed with a discussion led by Dr. C. E. Gillespie of Seymour. The banquet speaker was Dr. A. M. Mitchell of Terre Haute. A message was also given by Thomas A. Hendricks, executive secretary of the Indiana State Medical Association.

* * *

SIXTH DISTRICT MEDICAL SOCIETY MEETING

Sixth Councilor District members held a meeting at the New Castle Country Club on May sixteenth.

The morning was devoted to a symposium on "Blood and Plasma," conducted by Dr. C. G. Culbertson and Dr. Frank W. Taylor, of Indianapolis; a talk by Lieut. Col. I. H. Willett, M.C., U.S.A.; and a talk by Captain Glen Ward Lee, medical advisor for the Indiana Selective Service Board. The afternoon program included talks by Dr. J. A. Bargen, of the Mayo Clinic; Dr. Don F. Cameron, of Fort Wayne, and Dr. Paul D. Moore, of Muncie. Motion pictures were shown.

* * *

EIGHTH DISTRICT MEDICAL SOCIETY MEETING

Eighth Councilor District members held a meeting at the Beeson Club House, at Winchester, on June eleventh. The afternoon meeting was devoted to a symposium on "Fractures," with Dr. Byron Nixon, of Farmland, acting as the leader.

Following the dinner at 6:30 p. m., Dr. M. M. Zinninger, assistant professor of surgery, University of Cincinnati College of Medicine, spoke on "Intestinal Obstruction," followed by a discussion by Dr. W. D. Gatch, of Indianapolis, and Dr. L. G. Montgomery, of Muncie.

* * *

NINTH DISTRICT MEDICAL SOCIETY MEETING

Ninth Councilor District members held an all-day meeting on May twenty-second at the Frankfort Country Club. The principal speakers were Drs. George J. Garceau, of Indianapolis; Frank W. Peyton, of Lafayette; Homer H. Wheeler, of Indianapolis, and A. F. Weyerbacher, of Indianapolis.

* * *

TENTH DISTRICT MEDICAL SOCIETY

The Tenth District Medical Society held a meeting at the Gary Country Club, Gary, Indiana, May 14, 1941.

The business meeting began promptly at 2:00 p. m. Dr. N. K. Forster, of Hammond, was elected councilor for the district. Dr. J. R. Doty, president of the society, had appointed the presidents of each society comprising the district to form a committee to draw up a constitution and by-laws for the Tenth District Society.

Following this brief business session, the scientific program began with technicolor movies pertaining to Vitamin B, which was shown by representatives of E. R. Squibb & Sons Company.

The next speaker on the program was Dr. James O'Connor of East Chicago who discussed "Measles and Its Complications." The topic proved to be of great interest to the practitioner as well as the specialist.

Dr. Hugh Martin of Indianapolis presented a very valuable discussion on vitamins.

The meeting adjourned about 6:00 p. m. for dinner.

The evening scientific program began at 7:00 o'clock with the guest speaker, Dr. Samuel Feinberg of Chicago, talking on "Management of Nasal Allergy." This was discussed by Dr. Theodore B. Bernstein of Chicago and Gary. Both speakers presented interesting discussions which were beneficial both to the specialist and the general practitioner.

Dr. Clifford Straehley of Cincinnati presented a well-planned lecture on "Heart Failure." His subject and method of presentation resulted in complete attention of the members.

Last but not least, Dr. Edward Allen of Chicago spoke on "Hormones in Obstetrics and Gynecology." He discussed indications and contra-indications for the hormones.

The meeting adjourned rather late, with everyone well satisfied and looking forward to the next meeting.

M. Shellhouse, M.D., *Secretary*

INDIANA STATE MEDICAL ASSOCIATION

EXECUTIVE COMMITTEE

June 29, 1941.

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; A. M. Mitchell, M.D.; M. A. Austin, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: J. Neill Garber, M.D., state consultant, N.Y.A.; H. B. Mettel, M.D.; John W. Ferree, M.D.; H. F. Beckman, M.D., chairman, Sub-Committee to Study Maternal Morbidity and Mortality Rates for Indiana, and O. T. Allen, M.D., chairman, Committee on Conservation of Vision.

Membership Report

Number of members June 28, 1941	3,160
(106 honorary members; 141 in service)	
Number of members June 30, 1940	3,099
Gain over last year	61
Number of members Dec. 31, 1940	3,192
(90 honorary members)	

Treasurer's Office

Sale of Rokeby bonds. The committee received a letter from the Metropolitan Trust Company of Chicago in regard to the proposal to sell certificates held in the Rokeby Liquidation Trust. The state

association holds ten units of $100.00 each, amounting to $1,000.00, which were purchased in March, 1929. The proposal is to sell these units at $29.36 each net. The committee felt that the treasurer had no alternative but to agree to sell these units.

The statements of receipts and expenditures for May for the association committees and The Journal were approved.

1941 Annual Session at Indianapolis

Local arrangements well under way.

Commercial exhibit. 45 spaces sold; 4 spaces to be sold.

Banquet speakers. Dr. Fred W. Rankin, Lexington, Kentucky, president-elect of the American Medical Association, has accepted invitation to be the guest speaker at the banquet on Wednesday evening, September 24.

Dr. James Rowland Angell, president emeritus of Yale and director of education of the National Broadcasting Company, has written that he will know definitely by the middle of July whether or not he can accept the invitation to be present at the banquet.

Badges. The committee left the final choice of badges up to Dr. Nafe, Dr. Weyerbacher and the secretary, and expressed their approval of a badge with plenty of space in which to write the names of members.

Certificate for Dr. Karl Ruddell, president 1940, signed and ready for framing.

Legislative, Legal and Social Security Matters

National

Information in regard to osteopathic amendment to H. R. 4965 and provisions in H. R. 4476, which would allow osteopaths to serve as interns in army hospitals, received by the committee. Letters sent to Representative Harness, who introduced the amendment, and to other members of Congress from Indiana physicians brought to the attention of the committee.

A.M.A. case to be appealed. Request to be made of A.M.A. that when the briefs for the appeal of the A.M.A. case are prepared that a copy be made available to the state association for study by the attorney of the Indiana State Medical Association.

Local

Regulations prepared for tuberculosis tests for school employees.

Preliminary work completed in regard to tests for hard of hearing legislation.

Letter received from Clinton county suggesting that the law governing the membership of county hospital boards be changed. This was discussed by the committee and the attorney was instructed to write his opinion on the suggestion that such change be made. It was the opinion of the committee that a change in the law would not correct in any way any evils that might arise "under the present system where the county hospital is controlled entirely by the laity."

Organization Matters

Report of Maternal and Child Health Committee. Letter received from Dr. E. O. Asher, chairman of the Advisory Committee, to the Bureau of Maternal and Child Health of the Indiana State Board of Health, in which he asked for the approval of the Executive Committee of the following two statements:

1. If the physicians in the newly congested areas of the state desire to have it, we recommend that the State Board of Health cooperate with the United States Children's Bureau in providing prenatal and child health conferences where the need appears.
2. Also, that consultative services in obstetrics and pediatrics be made available on a basis similar to such services as are already provided for crippled children of the State Welfare Department (Doctor Greer's department).

The Executive Committee discussed this request and feels that these matters should be referred by Dr. Asher's committee directly to the House of Delegates for consideration at the ninety-second annual session of the Indiana State Medical Association which is to be held in Indianapolis September 23, 24 and 25.

Survey by Sub-Committee to Study Maternal Morbidity and Mortality Rates for Indiana. Questionnaires have been sent to the county medical societies by Dr. H. F. Beckman, chairman of the Sub-Committee to Study Maternal Morbidity and Mortality Rates for Indiana. Dr. Beckman is to appear at the next meeting of the Executive Committee and discuss this survey.

National Physicians' Committee. Letter from the National Physicians' Committee enclosing a brochure entitled "New Conditions Demand New Techniques," by Dr. Morris Fishbein, brought to the attention of the committee.

New committee appointments. Dr. H. C. Buhrmester of Lafayette has accepted the appointment on the Committee on Mental Health, and Dr. Weir M. Miley of Anderson has accepted a place on the M-Day and Veterans' Affairs Committee.

Chairman of Committee on Secretaries' Conference. The Executive Committee gave its approval to Dr. Hane serving as chairman of the Committee on Secretaries' Conference for the 1942 meeting despite the fact that Dr. Hane is no longer secretary of the Allen County Medical Society as he has been elevated to the presidency of that organization.

A.M.A. Meeting at Cleveland

League of Women Voters' survey. Dr. Mitchell reported on the conference he had had with the Board of Trustees of the A.M.A. in regard to the League of Women Voters' survey on health insurance. Following Dr. Mitchell's suggestion the Board of Trustees authorized the preparation of a special pamphlet by the A.M.A. which will be available to the members of the League of Women Voters.

"The Indiana Woman Voter," the official publication of the Indiana League, with its reprint of The

JOURNAL editorial entitled, "Arsenic and Old Lace," was brought to the attention of the committee.

Report upon A.M.A. meeting at Cleveland will appear in the July issue of THE JOURNAL, the principal article being written by Dr. F. S. Crockett, a member of the House of Delegates from Indiana.

State Board of Health

Report upon State Health Council for Monroe county made by Dr. Austin. Dr. Nafe and Dr. Weyerbacher are to inquire further into the council.

Change in syphilis test cards. Dr. John Ferree made the following statement to the committee relative to the removal of the clause, "The circumstances of this examination are such that I believe it should be made without charge":

"For some time we have been urged by the U.S. Public Health Service to remove this clause because they felt that it put syphilis in a different category than other communicable diseases in which cases the physician is not required to make such a statement. Their feeling is that this reacts detrimentally to the syphilis control program and that there is no good reason for this discrimination.

"From the practical standpoint we have never believed that the statement has ever meant very much. After consultation with some of the laboratory men of the State, it was felt that the Board would be justified in removing this clause from the card, especially since its retention made questionable the continued allotment of funds to the State of Indiana for venereal disease control work.

"It is our sincere hope that the physicians of the State will continue to send their serological work for syphilis to the private clinical laboratories in Indiana whenever possible.

"The following excerpts from the minutes of the Board Meeting are, I believe, self-explanatory:

"'The report on the removal of the clause on laboratory serology cards which says, "The circumstances of this examination are such that I believe it should be made without charge," was presented and on motion duly made and seconded said clause was ordered stricken from the laboratory serology card.'"

Group Hospitalization and Medical Service Plans

Specimen policy received from the Hospitalization Benefit Association. This is to be analyzed by Dr. Nafe and report made at the next meeting of the committee.

Recommendations in regard to medical service plans adopted by the Ohio House of Delegates to assist the local county medical societies brought to the attention of the committee.

"Prepayment Plans for Medical Care," by Franz Goldmann, M.D., brought to the attention of the committee. A report upon this booklet is to be made at the next meeting of the committee.

Medical Economics

Letter received from the National Youth Admin-

(Continued on page xx)

PROFESSIONAL PROTECTION

A DOCTOR SAYS:
"I have been with your Company, as I recall, more than twenty years and this is the first time I have been sued for any cause whatever which goes to prove that one can never tell when or where lightning may strike."

THE
MEDICAL PROTECTIVE COMPANY
OF
FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

INSURANCE

For ethical practitioners exclusively
(56,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $32.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $64.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $96.00 per year

39 years under the same management

$2,000,000.00 INVESTED ASSETS
$10,000,000.00 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

(EXECUTIVE COMMITTEE—*Continued from page xix*)

istration including blanks which are to be filled out by the youth's own family physician and containing a statement of the principle that each youth is to go to his own family physician for treatment for those disabilities which keep him from serving with the National Youth Administration. This letter was referred to Dr. Austin for report and recommendation at the next meeting. Dr. J. Neill Garber, state consultant of N.Y.A., discussed the question and other matters in regard to the National Youth Administration with the committee.

Demand for physicians. Letters are becoming more numerous at the headquarters office asking for physicians.

Central Laboratories Heatlh Service. Letter received from the secretary of the Lake County Medical Society in regard to the examinations made by the Central Laboratories of Indianapolis. The committee suggested that this letter be sent to the Indianapolis Medical Society, making inquiry as to just what the Central Laboratories do and what standing the laboratory has in the local medical field.

Medical Relief

Decision of the Appellate Court clarifying the responsibility for medical services in accident cases brought to the attention of the committee. Statement concerning this decision was carried in the July issue of THE JOURNAL, the article being written by Leo X. Smith, legal adviser of the Indiana Township Trustees Association.

April and May WPA reports brought to the attention of the committee.

State Board of Medical Registration and Examination and Cult Study Committee

Letter received from Dr. J. P. Davey, secretary of the Indiana State Board of Registration and Examination of Optometry, in regard to a physician who is a member of the Indiana State Medical Association who is serving with an advertising optical company in order that that company may not violate the optometry law brought to the attention of the committee. As this letter had to do with a situation at Muncie, Indiana, the committee suggested that this letter be forwarded to the Delaware-Blackford County Medical Society.

Letter received from John G. Benson, general superintendent of the Indianapolis Methodist Hospital, in regard to graduates of South American Medical colleges serving as interns brought to the attention of the committee. The committee felt that this is entirely a matter for the Intern Committee of the Methodist Hospital. The letter raises a question as to whether or not these graduates from South American medical colleges could fulfill the Indiana requirements which would qualify them to take the medical examinations here. According to the ruling of the State Board of Medical Registration and Examination, in Indiana a graduate of a foreign medical school has to take a year's work in an American medical school before being eligible for a license.

Ruling in Illinois banning graduates of foreign medical schools brought to the attention of the committee.

Socialized Medicine

Quarterly Journal of Medical Care, edited by Michael M. Davis and sponsoring socialized medicine, brought to the attention of the committee.

The report on the urban-rural conference held in Indianapolis May 15 and 16 brought to the attention of the committee. (It is significant that this conference did not take up the question of socialized medicine.)

Military Preparedness

Rumors that new induction systems are to be instituted brought to the attention of the committee. Dr. John Ferree, state health officer, discussed the national defense set-up as it applies to the medical profession in Indiana. In each county the County Civilian Defense Council will have upon it a physician selected by the county medical society and also the county health officer.

Deferment of medical students. The committee discussed this question thoroughly and decided that it was a matter of national and not of state policy and a subject which should be handled by the A.M.A. with the Washington officials and not the state association with local officials.

Farm Security Administration

Information received that the Daviess-Martin County Medical Society is to discontinue its FSA program.

National Nutrition Conference

Dr. Ferree reported upon the meeting with Dr. Elliott and Clarence Jackson and Herman Baker. The work in Indiana is to be carried on through the local National Defense Councils, about which Dr. Ferree spoke to the committee.

Indiana Society for Crippled Children

Correspondence between Dr. R. B. Acker, president of the Indiana Society for Crippled Children, and Dr. H. B. Mettel, acting director of the Division of Services for Crippled Children, State Department of Public Welfare, brought to the attention of the committee.

Industrial Health

Proceedings of the Third Annual Congress on Industrial Health brought to the attention of the committee.

The Journal

Upon the motion of Dr. Mitchell, seconded by Dr. McCaskey, the committee went on record approving the removal of professional cards from THE JOURNAL when the account becomes more than six months past due.

The committee referred the matter of a special heading for broncho-esophagologists in the physicians' directory to the officers of the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association.

The committee approved the employment of a part-time proof reader and a full-time assistant in THE JOURNAL office.

For the local Treatment of Acute Anterior **Urethritis**
(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE*
Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae.[1] An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., 23, 201 (March), 1939.

A complete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

IN INDIANAPOLIS . . . FOR COMFORT AND CONVENIENCE
EXPERIENCED TRAVELERS CHOOSE

HOTEL
LINCOLN

400 Rooms - - - - 400 Baths
Rates from $2.50
P. E. RUPPRECHT, Manager

LABORATORY APPARATUS

Coors Porcelain Pyrex Glassware
R. & B. Calibrated Ware
Chemical Thermometers
Hydrometers Sphygmomanometers

J. T. Baker & Co.'s C.P. Chemicals
Stains and Reagents
Standard Solutions

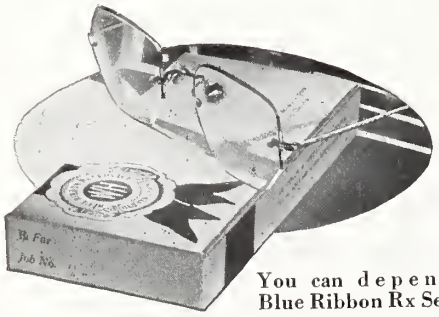
• BIOLOGICALS •

Serums Bacterins Media
Antitoxins Vaccines Pollens

We are completely equipped, and solicit your inquiry for these lines as well as for Pharmaceuticals, Chemicals and Supplies, Surgical Instruments and Dressings.

The RUPP & BOWMAN CO.
319 SUPERIOR ST., TOLEDO, OHIO

THERE IS A DIFFERENCE
IN Rx SERVICE



You can depend on Blue Ribbon Rx Service

THE WHITE-HAINES OPTICAL CO.
INDIANAPOLIS and SOUTH BEND

INDIANA STATE BOARD OF HEALTH
Bureau of Communicable Disease
MONTHLY REPORT, MAY, 1941

Diseases	*May 1941*	*April 1941*	*March 1941*	*May 1940*	*May 1939*
Tuberculosis	218	70	104	137	160
Chicken Pox	247	487	794	248	285
Measles	5116	4715	3791	57	57
Scarlet Fever	435	570	898	421	560
Smallpox	8	2	8	12	141
Typhoid Fever	5	1	7	17	11
Whooping Cough	197	128	123	115	250
Diphtheria	38	48	89	14	30
Influenza	55	49	259	18	55
Pneumonia	90	78	122	81	40
Mumps	158	238	272	624	361
Poliomyelitis	1	0	0	0	0
Meningitis	4	1	9	2	1
Trachoma	3	1	26	1	0
Malaria	2	0	0	0	1
Undulant Fever	2	0	2	4	3
Encephalitis	4	0	0	0	0
Rubella	330	313	158	0	0

Books

BOOKS RECEIVED

ORBITAL TUMORS—Results Following The Transcranial Operative Attack. By Walter E. Dandy, M.D., Adjunct Professor of Neurological Surgery, Johns Hopkins University. Eighth volume, 224 pages with 100 illustrations. Price $5.00. Oskar Piest, New York City.

* * * *

START TODAY—Your Guide to Physical Fitness. By C. Ward Crampton, M.D., Major, Medical Reserve Corps, United States Army; Formerly Director of the Department of Physical Education and Hygiene, New York Board of Education; Organizer and Director Health Service Clinic, and Assistant Professor of Medicine, Post Graduate Medical School and Hospital. 224 pages with numerous illustrations. Cloth. Price $1.75. A. S. Barnes and Company, New York, 1941.

* * * *

EFFECTIVE LIVING. By C. E. Turner, A.M., Sc.D., Dr. P.H., Professor of Biology and Public Health, Massachusetts Institute of Technology; and Elizabeth McHose, B.S., M.A., Director of Physical Education for Girls and Chairman of the Health Council, Senior High School, Reading, Pennsylvania. Cloth. 432 pages with 164 illustrations. Price $1.90. The C. V. Mosby Company, St. Louis, 1941.

* * * *

X-RAY THERAPY OF CHRONIC ARTHRITIS (Including the X-ray Diagnosis of the Disease)—Preliminary report based on 100 patients treated at Quincy, Illinois. By Karl Goldhamer, M.D., Associate Roentgenologist, St. Mary's Hospital and Quincy X-ray and Radium Laboratories; formerly Roentgenologist, University of Vienna, and Honorary Member, Mississippi Valley Medical Society. 131 pages with 24 original illustrations by the author, two roentgenograms, and four tables. Cloth. Price $2.00. Radiologic Review Publishing Co., Quincy, Illinois, 1941.

* * * *

PLAY FOR CONVALESCENT CHILDREN. In Hospitals and at Home. By Anne Marie Smith, Staff Instructor, Leaders' Training School, Community Recreation Service, Chicago, Illinois. 133 pages. A. S. Barnes and Company, New York, 1941.

* * * *

THE MARCH OF MEDICINE—Number V of the New York Academy of Medicine Lectures to the Laity, 1940. 154 pages. Cloth. Price $2.00. Columbia University Press, New York, 1941.

AMERICAN ILLUSTRATED MEDICAL DICTIONARY. By W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieut.-Colonel, M.R.C., U.S. Army, member of Committee on Nomenclature and Classification of Diseases of the American Medical Association. With the collaboration of E. C. L. Miller, M.D. Nineteenth edition, revised and enlarged, with 914 illustrations, including 269 portraits. Flexible binding; thumb indexed. $7.50. Philadelphia and London, W. B. Saunders Company, 1941.

BOOKS REVIEWED

THE 1940 YEAR BOOK OF GENERAL MEDICINE. Edited by George F. Dick, M.D.; J. Burns Amberson, Jr., M.D.; George R. Minot, M.D., S.D., F.R.C.P.; William B. Castle, M.D., A.M.; William D. Stroud, M.D.; and George B. Eusterman, M.D. 934 pages. Fabrikoid binding. Price $3.00. The Year Book Publishers, Inc., Chicago, 1940.

The Fortieth Anniversary Year Book of General Medicine is again outstanding and will be found pleasurable reading from cover to cover. It is a unique source book for light on all parts of the vast field of medicine.

This is a book which is worth ten times the price and should be on every physician's library shelf—the greatest year book yet published.

J.F.B.

* * *

ESSENTIALS OF DERMATOLOGY. By Norman Tobias, M.D., Senior Instructor in Dermatology, St. Louis. 497 pages with 143 illustrations, mostly photographs. Fabrikoid. Price $4.75. J. B. Lippincott Company, Philadelphia, 1941.

This excellent book should be welcome to practitioners and students. The aim of this publication is to restrict all written material to concise, quickly read and readily understood essentials. The larger texts at times, no doubt, tend to confuse and bog down the average man who is so often in a hurry to ascertain something about some skin condition. It would be absurd to expect this book to be sufficient for even general practice, but it can well serve as a readily available guide and source of information.

There are many illustrations that help to depict the salient details of various conditions; this fact is praiseworthy, for a picture will give a better illustration than two yards of written description. Because of small print and condensation of matter, this book really contains an enormous amount of material which covers probably every important item of dermatology. The writing is simple, blunt and almost of staccato type. Procedure of treatment is given very generally for all conditions. A chapter is devoted to the rationale of use of different therapeutic agents, chemical, physical, actinic and otherwise. It does bring out the fact that it is better to know a few things well, and to know when to apply these measures than to know a top-heavy mass of prescriptions.

H.B.

* * *

AMERICAN ILLUSTRATED MEDICAL DICTIONARY. By W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieut-Colonel, M.R.C., U.S. Army, member of Committee on Nomenclature and Classification of Diseases of the American Medical Association. With the collaboration of E. C. L. Miller, M.D. Nineteenth edition, revised and enlarged, with 914 illustrations, including 269 portraits. Flexible binding; thumb indexed. Philadelphia and London, W. B. Saunders Company, 1941.

Dorland's Medical Dictionary long has been the standard for physicians and medical publishers. It is a complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, nursing, veterinary science, biology, medical biography, etc., with pronunciation, derivation, and definition. This new edition has been subjected to thorough revision and more than two thousand new words have been added, many of which are defined for the first time in this nineteenth edition of this book. The additions cover all departments, but the most

When Diagnosing

Consider Our Shoes for Posture, Balance, Support or Correction

Heid assures a most careful shoe fitting as to doctors' prescriptions for type of shoe, last and correction to be attached for problem feet ones beyond the regular shoe store service.

Stock and Made-to-Measure Shoes

Orthopedic and standard shoes built flexible, resilient or rigid (not the same type for everybody) are featured and fitted by Irvin Heidenreich. Also persons sent in for good, comfortable shoes in regular or odd sizes are fitted at reasonable prices (seldom exceeding ten dollars).

HEID'S HEALTH SHOE

1546 N. ILLINOIS ST. (Sq. East of Meth. Hosp.)

RADIUM

RENTED
for the individual case at lowest rates. Instruments loaned.

LEASED
in any quantity of 50 milligrams or more, on a yearly basis. Continuous possession. No investment.

SOLD
in any quantity in latest platinum containers.

RADON in all-gold Implants at $2.50 per millicurie.

For details, address

RADIUM AND RADON CORP.
Marshall Field Annex • Randolph 8855
CHICAGO

notable are additions to the departments of endocrinology, physical therapy, biochemistry, psychiatry, drugs and medical preparations, surgical procedure and clinical syndromes, signs and symptoms of disease. This is a "must" book for every progressive physician and medical student. Through all of its editions, the last nine of which have been thoroughly familiar to the reviewer, Dorland's Medical Dictionary has maintained a consistently high standard. It is a necessary part of the armamentarium of every physician who expects to keep up with medical progress.

* * *

MACLEOD'S PHYSIOLOGY IN MODERN MEDICINE. Ninth edition. Edited by Philip Bard, Professor of Physiology, Johns Hopkins University School of Medicine, with the collaboration of nine authors. 1256 pages with 387 figures and several plates. Cloth. Price $10.00. The C. V. Mosby Company, St. Louis, 1941.

The reviewer has not had occasion to refer to or consult previous editions of this book, especially when it was under the distinguished authoriship of the late Professor MacLeod, but he has the impression that the tradition of a great textbook of physiology is being continued. It is very likely that this edition is radically different from the first copy.

It is a beautifully illustrated, well written, and well printed book. All phases of the subject are handled by authoritative specialists. There is profusion of detail and illustration which rather gives one an awe of the expanse and dimensions of the realm of physiology. For one who has been out of touch with such an academic subject for a few years, it is almost a shock to note the amazing and almost daring advances made in this science. Surely one cannot help but feel that the old saying of being "wonderfully and fearfully made" receives a new and startling confirmation. The new advances, the recent insights and the fresh coordination and integration of fields into a beautiful whole should deeply impress anyone with a respect and regard for the living organism, and the manner in which it holds its own from adversities within and without itself. No one could ever hope to read the entire book because of its immensity, yet this should not deter one from trying always to learn more about the background, the basis and the physics and chemism of some phase of organismal activity, such as the propagation of the nerve impulse, the beat of the heart, how one sees, and all the rest of these fascinating things.

The reviewer liked best, because of personal interest and bias, the sections upon the nervous system. Yet, there should be something of interest to anyone on any matter. If one is desirous of understanding the disturbance of the heart in coronary thrombosis, the chemical changes in the blood in bowel obstruction, the thing behind a hemiplegia and so on, he will find more than enough to inform and gratify him. This book helps to provide an enjoyable and thrilling feature practice of medicine. Instead of seeing only the mere tree of a disease, one also sees the bark which represents the disturbed physiology of the organisms.

H.B.

* * *

THE MASK OF SANITY. By Hervey Cleckley, B.S., B.A. (Oxon.), M.D., Professor of Neuropsychiatry, University of Georgia School of Medicine, Augusta, Georgia. 298 pages. Cloth. Price $3.00. The C. V. Mosby Company, St. Louis, 1941.

With great courage and open-mindedness, the author has tried to discuss and clarify one of the most difficult and misunderstood of all types of mental disorder, the psychopathic personality. In the average reference of psychiatry, even the more comprehensive ones, the subject is dismissed within a few scant pages; furthermore, the nature of the character disturbance of such an individual is discussed with such vagueness and looseness as to leave no solid impression or comprehension with student and practitioner.

These individuals are hard to understand and even harder to handle. Because they seem so free of the usual symptomatology of the neurotic and psychotic states and pass the usual psychometric examinations well or even very well, they seem quite normal persons. Nothing could be further from the truth and perplexing in fact. Possessing what seems well nigh a genius for performing all the milder crimes and being guilty of all the more current iniquities and failings of human nature, they are continually getting drunk, stealing, lying, and parasitizing upon the more sober and stable elements of society. To the police, they seem too "psychopathic" to go through ordinary processes of law, and to the psychiatrist they seem too "normal" to be institutionalized for mental disorder. If nothing is done, and that is often the case, the fellow travels a monotonous circle of misdemeanor, arrest, institutionalization and discharge back to society as a profound nuisance; in spite of what seems an excellent intelligence, he shows such irresponsibility and failure to profit from previous experience that he is truly a round peg in a square hole.

To settle the questions involved and make an useful disposition, Dr. Cleckley proposes important views and suggestions. He believes that such personalities should be considered as profoundly ill and on a par with those of severely psychotic subjects. With this attitude the reviewer heartily agrees. Thus the person will be out of the way of society and can be studied until such time as further information and insight will tell better what to do with him. It is further emphasized that the seeming mental normalcy of this individual should be disregarded because *it is no more than a rank imitation.* No one, of course, knows the roots and abnormal channels of growth and development of such an individual, but the author conjectures that whereas the person is provided with adequate intelligence for considering and solving all average problems of adaptations, nevertheless he is so sick that he can do no more than go through the motions of use and guidance of this intelligence. This makes it understandable as to how he would know what to do by reason, yet would act according to infantile instinct. The latter item brings up the matter that such a person has suffered early and severely of psychic trauma in baby and child life.

While this book primarily was intended for the specialist, it may be read profitably by any one in the profession as well as by informed and educated laymen.

H. B.

DON'T FORGET THE DATES OF THE ANNUAL CONVENTION—SEPTEMBER 23, 24, 25, 1941.

Zemmer
OAKLAND, STATION
PITTSBURGH, PA.

PRESCRIBE OR DISPENSE ZEMMER
Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled.
Write for general price list.
Chemists to the Medical Profession. IN 8-41

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 SEPTEMBER, 1941 NUMBER 9

This is the eighth of a series of articles on Indiana's "twelve great killers." In 1940 there were 1,343 deaths from tuberculosis in Indiana. Next month the articles will deal with Influenza and Suicides.

TRACHEOBRONCHIAL OBSTRUCTION AND ITS RELATION TO PULMONARY TUBERCULOSIS

PHILIP H. BECKER, M.D.*

GEORGE W. HOLMES, M. D.*

CROWN POINT, IND.

Clinicians have recognized for a long time the importance of early diagnosis whenever partial or complete obstruction of any vascular, excretory, or secretory system of the body is threatened. It is well recognized today that the morbidity and mortality rates are greatly increased whenever the alimentary, urinary, or biliary systems are obstructed in any way. The secondary infection which follows rapidly after any partial obstruction to the normal excretory or secretory tract of the body is well known and, accordingly, modern laboratory, roentgenological, and diagnostic measures are being devised or perfected to insure early diagnosis of these obstructions. Obstruction to the arterial or venous system is not usually included in these discussions, but the mechanism is primarily the same and the seriousness of this condition, as well as the irreparable damage done, is very evident. The increasing incidence of coronary artery occlusion and its deleterious effect undoubtedly will impress clinicians more forcefully with the importance of early diagnosis in all cases of threatened, partial, or complete obstruction to the vascular, excretory, or secretory systems of the body.

In any acute or chronic pulmonary disease, one of the primary objects of the treatment regime is to promote free expectoration of all pulmonary secretions or exudates via the tracheobronchial tree. Innumerable medications have been used as well as countless other devices; and more recently tracheobronchial aspiration by catheter or bronchoscopy is being used.

The status of the tracheobronchial tree with its multitude of ramifications has never been seriously investigated as to what part it might play in the retention of pulmonary secretion or exudate; however, in recent years, increasing work has been done to learn more about this very essential and important passageway. Every day patients are seen in clinics complaining of dyspnea and inability to expectorate; these patients know that the dyspnea and their discomfort will be greatly relieved if the physician will prescribe medications to promote expectoration. Patients with rigid or fixed thoracic cages, beter known as barrel-shaped chests, are seen daily, but still the tracheobronchial tree is not fully investigated for obstructions or causes of the retention of pulmonary secretion. The present bronchoscope unfortunately lacks the versatility that is needed to study the smaller or peripheral bronchial mechanisms in detail.

Tracheobronchial obstructions will be considered in this discussion as any encroachment on the normal lumen of the trachea and two main bronchi, including the openings to the individual lobes of both lungs. Acute tracheobronchial obstructions are relatively rare; those resulting from foreign bodies (opaque, non-opaque, vegetable, or metallic objects) so well described by Chevalier Jackson and his coworkers[1], rarely leave residual permanent bronchial obstruction after prompt removal of the foreign body. Coagulated blood in the tracheobronchial tree following pulmonary hemorrhage or the sudden accumulation and solidification of pulmonary secretions in the tracheobronchial tree may cause sudden acute tracheobronchial obstructions. Again, if the latter two types of obstructions to the tracheobronchial tree are removed before secondary infec-

* From the James O. Parramore Tuberculosis Hospital, Crown Point, Indiana.

[1] Chevalier Jackson: Bronchoscopy, esophagoscopy, and gastroscopy. W. B. Saunders Co., 1934.

tion can occur distal to obstruction, residual tracheobronchial occlusions are rare. The authors well recognize that patients may suddenly develop symptoms suggestive of an acute tracheobronchial occlusion, but on further study it is generally revealed that the patient has had symptoms of tracheal or bronchial obstruction for some period of time before the acute episode. Accordingly, the majority of tracheobronchial obstructions are chronic in nature, but the symptoms may be very slight and not noticeable until the obstruction becomes almost complete by a secondary mechanism of retention of pulmonary secretions or progressive pathological change of the tracheobronchial tree. Encroachment on the lumen of the tracheobronchial tree may be localized in one area and the remaining portion of the tracheobronchial tree may be essentially normal. On the other hand, extensive disease of the tracheobronchial tree may produce a gradual or generalized narrowing of the lumen of the trachea or both main bronchi. Therefore, tracheobronchial obstructions may produce very slight to partial or almost complete obstruction of the tracheobronchial tree, and it is often noted that only a slight encroachment into the lumen of the tracheobronchial air passages is necessary to produce a dyspnea out of all proportion to the roentgenological findings present in the lungs. In view of our present knowledge of diseases of the tracheobronchial tree, we divide tracheobronchial obstructions into two main groups: non-tuberculous obstructions, and tuberculous obstructions.

NON-TUBERCULOUS TRACHEOBRONCHIAL OBSTRUCTIONS

There are no accurate or available figures in the literature of the incidence of non-tuberculous obstructions to the tracheobronchial tree. The literature is filled with reports of different types of non-tuberculous obstructions to either the bronchi or trachea with a history of fulminating secondary pulmonary infection retrograde to the occlusion. Pathologists uniformly conduct routine gross examinations of the lungs by long sweeping sections through the lungs with the post-mortem knife; and consequently, the bronchi are cut across in tangential sections and the tracheobronchial tree is rarely examined in its entirety or anatomical relationships to the surrounding thoracic structures. It would be interesting to know the incidence of partial tracheobronchial obstruction found on routine examination of consecutive post-mortem examinations of patients dying in general hospitals. Increased bronchoscopic examinations show that there are many forms of pathology specific to the tracheobronchial tree that were unknown a few years ago. As yet, there are no figures available as to the status of tracheobronchial tree of all patients consecutively admitted and bronchoscoped in large general hospitals; such a figure probably will never be obtained, and in the authors' minds, the routine procedure is not justifiable.

Eloesser[2] has published a very complete article on bronchial occlusions, and points out there are many congenital, cystic, infectious, and neoplastic conditions of the mediastinal structures that can produce all degrees of tracheobronchial obstruction. Many of the conditions that he points out are relatively rare but all are definite possibilities. The more common non-tuberculous tracheobronchial obstructions are those produced by syphilitic scarring or gummata, rhinoscleroma, glandular fever, typhoid, or actinomycosis; pneumoconiosis and benign or malignant primary and secondary neoplasms of the tracheobronchial tree and lungs are included.

Tumors of the lungs or tracheobronchial tree are worthy of some comment at this time. Primary bronchogenic carcinoma is most accurately diagnosed by bronchoscopic examination and then only when the lumen of the tracheobronchial tree is partially invaded and a biopsy can be obtained. This invasion by the tumor into the tracheobronchial lumen accounts for many of the patients' symptoms. Metastatic carcinoma to the lungs can produce bronchial obstruction and recently we have had a case of a patient dying of fibro-sarcoma who came to autopsy, and detailed examination of the tracheobronchial tree revealed that a metastasis to the lower left bronchial wall grew to such extensive size, apparently because of no resistance of the surrounding tissue to its growth, that it was as large as an ordinary cigar and caused an intractable cough with continual hemoptysis. Benign tumors of the tracheobronchial tree such as adenomata, papillomata, and polyps are not as rare as formerly was believed, and can produce all degrees of tracheobronchial obstruction.

There is increasing evidence, especially to those who are doing bronchoscopy work, that many cases of so-called chronic bronchitis reveal an essentially negative tracheobronchial tree on bronchoscopic examination, except that there is a cylindrical narrowing due to a thickening of the mucosa or a slight submucosal edema through which the ordinary 7 mm. by 40 cm. bronchoscope can not be passed readily. The two lower main bronchi and the openings to both lower lobes can not be visualized clearly. Bronchographic studies likewise reveal that in such cases the main bronchi are funnel-shaped. The installation of contrast media during fluoroscopic examination usually reveals this funneling of the two main bronchi, and usually the condition is not revealed on the ordinary roentgenogram because the contrast media has escaped into the individual lobes during the interval that the roentgenogram is taken. Usually such patients with chronic cough have a history of asthmatoid attacks associated with retention of expectoration, dyspnea, and roentgenological evidence of emphysema. The symptoms of non-tuberculous tracheo-

[2] Eloesser: *Journal Thoracic Surgery*, 1931-32, 1:194; *American Review Tuberculosis*, 1934, **30**:123.

bronchial obstruction are variable, depending upon the degree of stenosis present. An oral wheeze, paroxysmal attacks of coughing with difficulty in expectoration, dyspnea, and asthmatoid attacks are the most common. The retention syndrome, occurring in extensive bronchiectasis, with the intermittent fever, brassy type of cough, dyspnea, and toxicity suddenly relieved by the expectoration of large volumes of purulent material is often seen. There has not been enough work done at the present time to evaluate the cardinal symptoms of nontuberculous tracheobronchial obstruction. The diagnosis is suspected when any of the above symptoms occur and if roentgenograms of the chest reveal any infection secondary to a suspected obstructive mechanism in the tracheobronchial tree, or if the roentgenological findings of the chest are explainable possibly by an obstructive mechanism of the tracheobronchial tree. Atelectasis as revealed on physical examination and the roentgenogram is highly suspicious of tracheobronchial obstruction. The final diagnosis is made by bronchoscopy or bronchographic studies.

The treatment in all such conditions is dependent upon the mechanism present and since the majority of cases are of a chronic nature, it is difficult to expect good results by any form of treatment. In the case of acute or chronic infections that have specific chemotherapy such as syphilis, remarkable improvement is often obtained. The technique of lobectomy and pneumonectomy has been greatly improved so that the operation is relatively safe. By such an operation the infection is removed and the patient is assured relief from expectoration, cough, and focus of infection. The indications of this major type of surgery are few and limited. The best treatment still remains early diagnosis and prevention of such conditions whenever possible. Obstructions to the smaller divisions of the bronchi and the bronchioles are unseen through the bronchoscope and their treatments are beyond the scope of this discussion.

TUBERCULOUS TRACHEOBRONCHIAL OBSTRUCTION

Tracheobronchial obstructions occurring in pulmonary tuberculosis were first described by Heinze[3] in 1879. Eppinger[4], in 1880, described the condition more fully and is usually given credit for the first complete report. From 1880 to 1924, the literature is filled with isolated reports on cases of tuberculous tracheobronchitis with obstruction. The post-mortem incidence of tuberculous tracheobronchial disease and obstruction was reported in 1924 by Heaf[5]; 44% of 133 autopsies on known cases of tuberculosis showed tuberculous tracheal involvement, varying from edema to ulcerations. In 1929, Minkovsky[6] reported the results in 2,379 autopsies of pulmonary tuberculosis in which he found the trachea was involved in 11.05%. Reports from different parts of the world reveal a post-mortem incidence from none up to 25% of tracheobronchial tuberculosis with all degrees of obstruction. Bugher and his coworkers[7], in 1937 reported a post-mortem incidence of 48.4% tuberculous tracheobronchitis in 122 tuberculous cases coming to autopsy. All cases were studied microscopically. In 1939, Flance and Wheeler[8] found only 3.1% gross tuberculosis tracheobronchitis in 295 cases of pulmonary tuberculosis coming to autopsy. In 1940, Aufses[9] reported that 30% to 35% of autopsies on patients dying of pulmonary tuberculosis showed tracheobronchial involvement. These figures are at considerable variance but show that some attempt is being made to find the post-mortem incidence of tuberculous tracheobronchial disease, and in all cases of tuberculous tracheobronchitis there is some degree of obstruction to the normal lumen. The bronchoscopic incidence of tracheobronchial tuberculosis was reported in 1939 by Warren and his coworkers[10] and they concluded that the probable incidence of tuberculous tracheobronchitis is between 10% and 15%. In 1939, McIndoe and his co-workers[11] published an excellent article; after routine bronchoscopy of the 272 consecutive patients which were the majority of admissions to several tuberculosis sanatoria, their results showed that 11% of the 272 cases bronchoscoped had gross evidence of tuberculous tracheobronchitis. It is interesting to note that the pioneer work of Chevalier Jackson[1] overcame the reluctance on the part of many medical men to have pulmonary tuberculosis patients undergo bronchoscopy. Clerf[12], in 1931, described the relative safety of bronchoscopy in cases of pulmonary tuberculosis. However, the careful work by McIndoe and his co-workers[11] conclusively showed that routine bronchoscopy can be carried out even in cases of pulmonary tuberculosis with impunity; however, the authors themselves state that the procedure is not justifiable in all cases and should be reserved for those cases showing clinical or roentgenogical findings.

Reichle and Frost[13], in 1934, described the pathology of tracheobronchial tuberculosis and the ensuing obstruction. They point out that the tracheobronchial disease is not the result of contact with positive tuberculous sputum from the lung parenchyma, but rather the infection is by contiguity or extension from the tuberculous peribronchial or peritracheal lymph nodes. They show that the

[3] Heinze: Die Kehlkopfschwindsucht, Leipzig, 1879.

[4] Eppinger: Klebs Handbuch der pathol Anat., 1880, Bd. 2, p. 293.

[5] Heaf: *Lancet*, October 4, 1924.

[6] Minkovsky: *Laryngoscope*, 1929, **39**:819.

[7] Bugher, Littig, and Culp: *Amer. J. Med. Sci.*, 1937, **193**:515.

[8] Flance and Wheeler: *Amer. Rev. Tuberculosis*, 1939, **39**:633.

[9] Aufses: *Amer. Rev. Tuberculosis*, 1940, **42**:622.

[10] Warren, Hammond, and Tuttle: *Amer. Rev. Tuberculosis*, 1938, **37**:315.

[11] McIndoe, Steele, Samson, Anderson, and Leslie: *Amer. Rev. Tuberculosis*, 1939, **39**:617.

[12] Clerf: *J.A.M.A.*, 1931, **97**, No. 2, pp. 87.

[13] Reichle and Frost: *Amer. J. Pathol.*, 1934, **10**:651.

infection spreads directly through the adjacent tracheobronchial wall. It is generally believed, however, that tracheobronchial tuberculosis can result from direct contact with sputum positive for tubercle bacilli as well as by continuity with the nearby pulmonary tuberculosis infection, and in rare cases by hematogenous dissemination of the tubercle bacilli. Barnwell and his co-workers[14] point out that the peripheral pulmonary tuberculosis may be slight in proportion to the tracheobronchial disease and obstruction. McIndoe and his co-workers[11] showed that tracheobronchial disease with its resulting degrees of stenosis was present in 13.2% of minimal cases and 45.2% of moderately advanced cases of pulmonary tuberculosis. Contrary to belief, tracheobronchial tuberculosis and obstruction occur less frequently in far advanced cases of pulmonary tuberculosis than was formerly thought. Many cases of primary tracheobronchial tuberculosis with extensive obstruction have been reported throughout the literature without any roentgenological evidence of parenchymal pulmonary tuberculosis. Tuberculous tracheobronchial disease is cassified as ulcerative, granulating-ulcerative, healed stenosis, and ulcerostenosis; any of these conditions are associated with slight to almost complete tracheobronchial obstruction. As in the case of non-tuberculous tracheobronchial obstruction, the symptoms vary depending upon the degree of obstruction. However, the oral wheeze is the most common symptom; and difficulty or inability to freely expectorate during paroxysmal coughing attacks often occurs. The patient usually complains of marked dyspnea until the expectoration is brought up; sometimes typical asthmoid attacks occur and are relieved slightly with adrenalin. Unexplainable variations in the volume and consistency of the daily sputum of a patient with pulmonary tuberculosis arouses suspicions of obstruction with retention of the sputum. The retention syndrome described previously is often present but is not an early symptom. The diagnosis of tuberculous tracheobronchial obstruction is made only after complete bronchoscopic examination is made. The above clinical symptoms and especially any roentgenological findings are highly suspicious; all degrees of atelectasis and sudden collapse of an infected lung during the beginning of collapse therapy are usually suspicious of tracheobronchial obstruction. In pulmonary tuberculosis many cases which were previously considered pulmonary fibrosis with acquired dextrocardia are now known to be the results of extensive tracheobronchial obstruction. Surgery in pulmonary collapse measures for pulmonary tuberculosis has often been complicated in the past by partial or complete tracheobronchial obstruction with retention of retrograde secretions and resulting pneumonia. The mortality of surgical collapse measures in pulmonary tuberculosis will be decreased in the future because of the knowledge of this additional serious complication that occurs in pulmonary tuberculosis and complicates the post-operative period. It would be interesting to speculate on the incidence of post-operative fatalities occuring in general surgery due to partial tracheobronchial occlusion with retention of retrograde secretions. These cases are usually referred to as post-operative pneumonias.

The treatment of tuberculous tracheobronchial obstructions are numerous but again the condition is a result of a chronic disease and the results of treatment are not dramatic. It is noteworthy that in the case of tuberculous hilar lymph glands, occurring often in childhood tuberculosis, the infected glands do not ulcerate into the tracheobronchial tree suddenly, but instead the process is a gradual encroachment and finally ruptures into the tracheobronchial lumen. Electrocautery, chemical cautery, ultra-violet ray, deep x-ray, and dilatation by bougies have been attempted in the treatment of tuberculous tracheobronchial obstruction and with varying degrees of success. Since the prognosis of pulmonary tuberculosis is very poor in cases associated with tracheobronchial obstruction, extensive thoracoplasty of the lung retrograde to the obstruction is recommended to prevent the complete and eventual acid-fast infection of all the lung tissue retrograde to the obstruction. Pneumonectomy and lobectomy are done on isolated cases for relief of this condition but the indications are more strict than those in cases of non-tuberculous tracheobronchial obstruction. At the present time, we are following a fairly large series of tuberculous tracheobronchial obstructions, in all of which the obstruction involves either a main bronchus or both. In one case of both tracheal and bronchial obstruction, the patient developed an extensive spread into both lungs and terminated rapidly. The sudden spread of a tuberculous lesion into a previously healthy portion of the lung can occur at any time when tuberculous tracheobronchial obstructions are present, and it makes the treatment of such cases very difficult or hopeless.

SUMMARY

1. The importance of early diagnosis in obstructions to the alimentary, secretory, excretory, and vascular systems is stressed.

2. Acute and chronic types of tracheobronchial obstructions are discussed.

3. Incidence, pathogenesis, symptoms, diagnosis, and treatment of non-tuberculous tracheobronchial obstructions are discussed.

4. Tuberculous tracheobronchial obstructions are discussed as to incidence, pathogenesis, symptoms, diagnosis, and treatment.

PROGRAM FOR INDIANAPOLIS SESSION ON PAGE 475

[14] Barnwell, Littig, and Culp: *Amer. Rev. Tuberculosis*, 1937, **36**:8.

THORACOPLASTY: TYPES OF TUBERCULOSIS SUITABLE FOR OPERATION—REPORT OF TWENTY-FIVE CASES*

J. W. STRAYER, M.D.
GORDON A. THOMAS, M.D.
LAFAYETTE

(" . . ., and He took one of his ribs and closed up the flesh thereof."—Genesis, 2:21.)

Inasmuch as the medical journals have been replete with papers dealing with thoracoplasty, it seems that it would not be out of place to use this medium in bringing some of the generalities of this operation a little closer to the practitioner. The conception of the operation and some of the details of technic date back many years, but it has been only within the last decade that wide application has been made of this very useful procedure. When one of us (J. W. S.) was in medical school during the late twenties, he saw only one patient who had had a thoracoplasty, and this patient was exhibited more or less as a curiosity. At that time the operation was considered extremely hazardous and was performed only occasionally. Apparently the high mortality and poor results justified this contention.

HISTORY

Credit for the first deribbing operation for tuberculosis is given to de Cerenville, in 1885, although it would seem that the principles involved were derived from the earlier operation of Estlander, 1879, for chronic empyema. Numerous European surgeons experimented with and developed the operation, among them Brauer, Sauerbruch, Wilms and Friedrich, while in this country the pioneering has been largely done by Archibald, Coryllos, Graham, Alexander, Hedblom and others. A conception of how highly the operation has been developed may be gained from the fact that there has recently been published a monumental two-volume work of 1500 pages by Aguilar[1] which is devoted entirely to thoracoplasty for the treatment of pulmonary tuberculosis.

RATIONALE

Although the operation comes under the head of elective surgery, except in the rare instances when it is done for uncontrollable hemorrhage, it should be pointed out that it is in reality a "must" operation, for in almost every instance one can tell the patient "with this operation you have a good chance of recovery, without it you will eventually die of tuberculosis." We are not now speaking of the "good chronic," the patient who can live with tuberculosis for years, but of the type of case illustrated in this article, viz., (1) the individual with a cavity and with a disease which one feels certain will increase with any degree of physical activity, or (2) the patient with tuberculous empyema. With very few exceptions the patients want to get well and want to return to normal life. There are, however, many patients with advanced tuberculosis who want to be operated upon but in whom the procedure is contraindicated.

INDICATIONS

There are two great indications for thoracoplasty in tuberculosis, (1) tuberculosis of the lungs in which there is a cavity that will not close by any other simpler method, and (2) tuberculosis of the pleura, i. e., tuberculous empyema.

1. The first question that occurs to the phthisiotherapist when he sees a case of tuberculosis is, "What course of treatment is to be followed?" Almost at once the case takes on a certain pattern, e. g., minimal disease without much exudate and without cavity may suggest bed rest and nothing more. Other cases demand pneumothorax or possibly phrenic interruption, while still others are so hopelessly advanced that one simply puts them to bed, makes their remaining days as comfortable as possible, and except for periodic examinations stops thinking about them. Then there comes the individual with advanced tuberculosis with one or more cavities in one lung and none or a relatively small amount of disease in the other. It is obvious that the disease is dangerously active. The first thing that one thinks of is how to close the cavity with the least possible difficulty. Since the combined experience of a vast number of men working with tuberculosis has taught us that cavities more than two or three centimeters in diameter rarely close spontaneously, we at once look to pneumothorax as our next best means of attack without further temporization. In many instances the cavity closes readily and the problem is solved. If adhesions suitable for cutting exist, the pneumothorax may still be made to function. If it is impossible to introduce any air whatever, one may try phrenic interruption especially if the cavity is a small one and preferably if it is in the base. Finally, if pneumothorax is impossible or unsatisfactory after a reasonable trial, the pattern for thoracoplasty becomes complete, providing, of course, the patient is not too old or too ill to withstand a rather severe operation. Naturally there are other contraindicative factors such as the presence of a second disease, but we are trying to point out that aside from the border line cases there are many that fall into the pat-

* From the William Ross Sanatorium, Lafayette, Ind.

[1] Aguilar, H. D., LaToracoplastia en el Tratamiento de la Tuberculosis Pulmonar. Buenos Aires, 1938 El Ateneo, 2 volumes, pp. 1504.

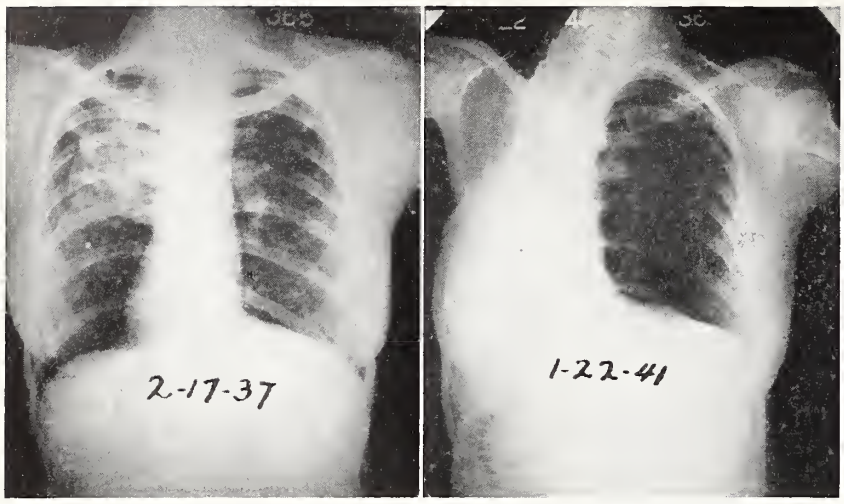
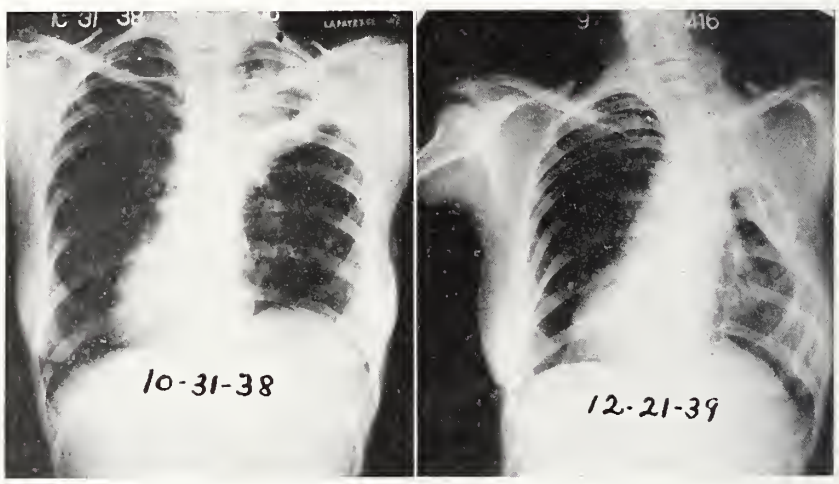


Fig. 1. This patient had dense infiltration throughout the upper half of the left lung with several large cavities. A trial of pneumothorax was unsatisfactory as numerous dense adhesions were present (see photograph.) Shortly after this film was taken a seven rib, two-stage, thoracoplasty was performed. Closure of the cavities soon followed and the sputum became negative. Phrenic interruption was also done on this patient.

Fig. 2. Although the lesion in this patient was relatively small, the cavity in the midst of the dense infiltration was approximately 4 cm. in diameter. Repeated small hemorrhages had taken place before she entered the hospital and two occurred after admission. Pneumothorax was attempted but the pleura was fused in all areas. The sputum was highly positive for tubercle bacilli. Early in 1939 seven ribs were removed in two stages. Rapid improvement was made and against advice the patient resumed her occupation as a bookkeeper six months after leaving the hospital. She is well and is working, and shows no evidence of any activity of the disease. She was forty-four years of age at the time of the operation.



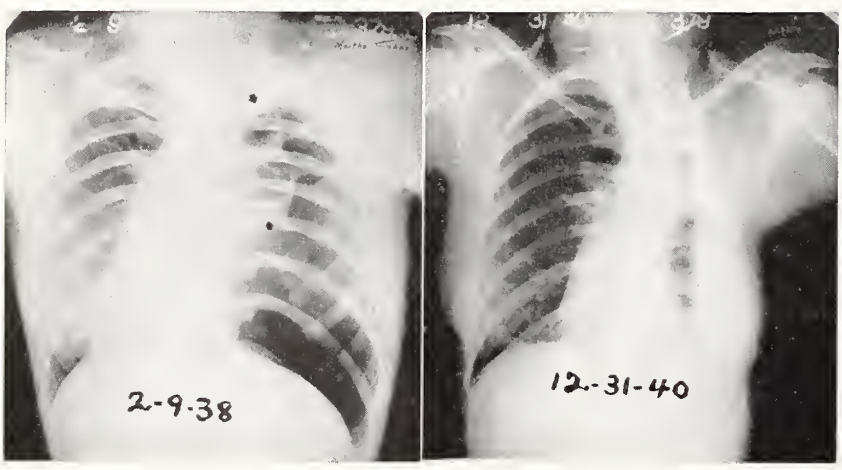


Fig. 3. Because of the numerous large adhesions pneumothorax failed to reduce the size of the cavities in this patient. Pneumolysis was attempted but the adhesions were not suitable for cutting. Ten ribs were then removed in three operations, with successful closure of the cavities. This patient has been working for two years and has shown no recurrence of symptoms. The disease visible in the left apex improved after operation.

tern one classifies as suitable for thoracoplasty.

2. The second great indication for thoracoplasty in tuberculosis is tuberculous empyema. Although pleurisy with effusion due to the tubercle bacillus occurs frequently and without any apparent pulmonary involvement, actual tuberculous empyema, in our experience at least, is always secondary to pulmonary tuberculosis which is usually far advanced. Ordinarily it occurs in two ways: (1) Spontaneously, caused by rupture of the lung from unknown reasons, possibly erosion of the cavity completely into the pleural space or possibly a rupture induced by coughing; in any event, cases are seen which have not been tampered with and which do have a pyothorax and a diseased lung due to the tubercle bacillus. (2) The empyema may be and often is the direct result of trying to collapse the lung with air. Small pleural effusions during the course of pneumothorax treatment are common and usually harmless, but occasionally one will induce air and the patient will the same day or shortly thereafter complain of tightness in his chest. The pulse will be rapid and on fluoroscopy one sees a completely collapsed lung. It is obvious that a rupture has occurred and it is necessary to remove air to relieve the internal pneumothorax. Following this episode fluid may form which ultimately becomes purulent. Sometimes it happens that there is no leak in the lung and no air escapes; in these cases an effusion forms which is not absorbed and finally resolves into an empyema. Skavlem et al.[2] point out that tuberculous empyema usually develops as a result of the transmission of the tubercle bacillus by the lymphatics from the outer zone of the lung to the pleura and that there is a higher incidence following collapse therapy by artificial pneumothorax in the cases wherein the lesions in the lungs were predominately exudative in type.

Since tuberculous empyema is a disease in which the mortality approximates 100% if untreated, it is imperative that something be done about it. No one denies that there are cases which may be cured by repeated removals of pus and by irrigation of the pleural space with some antiseptic solution, or by the instillation of an antiseptic oil, but certainly the number cured by these methods is small. Furthermore, if the lung expands too rapidly (in a period of less than three or four years) the pulmonary disease will not be healed and we have the same original problem to deal with. It seems obvious then that the best method of treatment is one which will obliterate the empyema cavity and at the same time keep the diseased lung collapsed. Fortunately, many of these cases are unmixed infections which are free from fever and other toxic symptoms. Hence, again we have a certain pattern in which thoracoplasty offers the easiest and best solution to the problem. Hedblom,[3] in 1932, laid down certain principles in the treatment of this disease which have not been improved upon and are as follows: "In a primary tuberculous empyema without secondary infection, treatment consists of repeated aspirations of pus and replacement with air, always leaving the pressure slightly less than atmospheric. Failure after some months of such treatment to cure empyema is an indication for thoracoplasty. If secondarily infected, closed drainage is indicated with irrigation with Dakin's solution, provided there is no bronchial fistula in which case open drainage may be needed. Often a thoracoplasty or a plastic operation will be necessary for complete healing, since the lung re-expands only in part. In secondary tuberculous empyema, including those resulting from artificial pneumothorax, the treatment of choice is early thoracoplasty, both to obliterate the empyema cavity as well as to aid the healing of the underlying pulmonary lesion."

THE OPERATION

No attempt will be made to go into great technical detail but only to outline a few principles that are essential to a successful operation. Brauer stated in 1909, and since then it has become axiomatic, that the amount of collapse was proportional to the length of rib removed. It is also true that when large amounts of rib are removed in a single operation the procedure becomes dangerous because of shock, autotuberculinization, mediastinal shift, and other complications. It is, therefore, necessary that a graded operation of two or more stages be planned.

Although in certain instances a cure can be effected by a single operation, we have found it difficult to close in one sitting cavities which are not strictly limited to the space above the fifth dorsal spine. Inasmuch as so few cases can be cured easily with one operation, and many may be cured with two, we have made it a practice of planning a three-rib operation, followed in two or three weeks by the removal of sections of the 4th, 5th, 6th and 7th ribs. This permits bedding in of the scapula, and since the upper portion of the lung is the common site of disease further collapse is often unnecessary. However, if the disease is widespread or lies low in the lung, further removal of rib may be necessary.

Where empyema is the problem, single operations may be more extensive because here one does not have an expanded diseased lung to contend with and, furthermore, the mediastinum is fixed and the pleura greatly thickened.

A great deal has been said concerning the length of a single rib that should be removed, but this will not be dealt with in detail here. It is sufficient to say that enough bone should be removed until the

[2] Skavlem, J. H., McKinnie, L. P., Baker, L. E., and Christiansen, J. N.: Tuberculous Empyema, *Am. Rev. Tuberc.* 1941, **42**:747.

[3] Hedblom, C. A.: Surgical Treatment of Empyema, *Jour. Thorac. Surg.*, 1932, **2**:115.

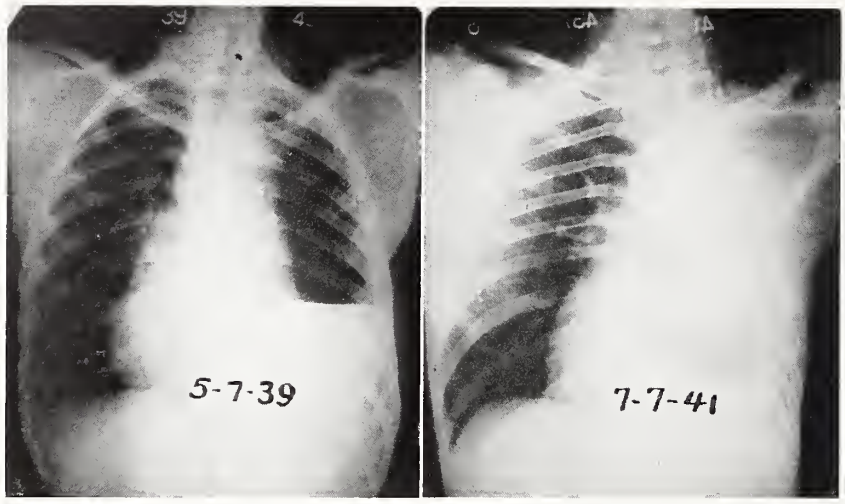


Fig. 4. Following a hemorrhage widespread exudative tuberculosis developed throughout the right lung. There was cavitation in the apex. Pneumothorax was established, but a week later after a refill a spontaneous pneumothorax developed with a complete collapse of the lung (see above), and it became necessary to remove air to relieve the patient. Fluid then formed which became purulent and contained many tubercle bacilli. Repeated removals were necessary. Fortunately, the patient was not toxic from the empyema and gained weight and strength. Finally, in May, 1940, a ten-rib thoracoplasty was begun. Following the third operation a few cc.'s of pus were removed on two occasions after which no more could be obtained. The patient showed rapid improvement and has been working for the past six months.

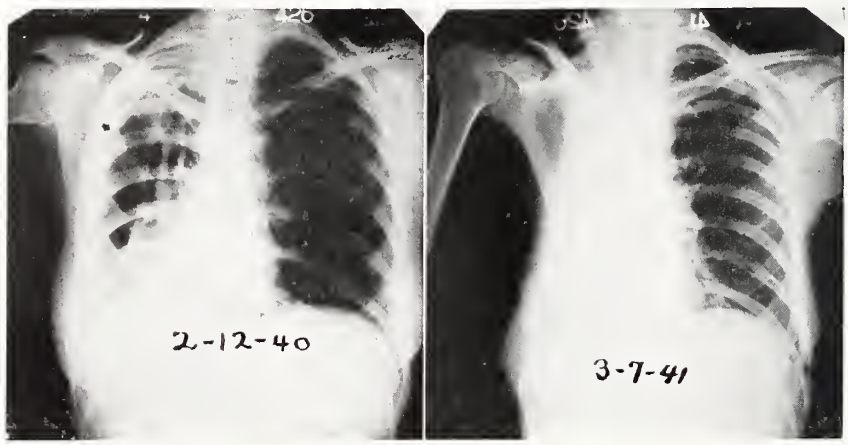


Fig. 5. The film on the left shows an empyema space occupying about one-half of the left chest. The empyema followed a spontaneous collapse shortly after instituting pneumothorax in 1939. The original lung lesion was an advanced cavernous tuberculosis. No fluid level is visible as the pus was aspirated just prior to x-ray. Note the greatly thickened parietal pleura and the density and proximity of the ribs. Eleven ribs were removed in three stages, beginning in February, 1940. No pus could be obtained after the operation. The patient has no symptoms and is quite active physically.

operation is believed to be clinically *adequate*. One must, therefore, make a qualitative and quantitative study of the case both before and after each operation, giving consideration to the location and type of disease and to the condition of the patient. It must also be borne in mind that the direction a rib takes is not in a horizontal plane but that it slants rather sharply from the spine to the sternum. Furthermore, when one starts at the top to remove ribs collapse is obtained not only from above and downward but from every other point from which rib is removed.

MORTALITY AND RESULTS

The mortality of any operation depends in a measure on the condition of the patient before operation. We do not believe that there is any point in attempting a thoracoplasty if there is reason to doubt that the patient will survive. In 1934 Crimm, Strayer and Baker[4] reported a series of ninety-two operations with no deaths, and we have had no deaths in fifty-two operations performed on twenty-five patients. It is imperative that close attention be given not only to the extent and character of the disease but to vital capacity, the age of the patient, and the presence of other serious organic diseases. In this latter series there were no deaths during or immediately following operation; one patient died one year after operation, apparently from a

[4] Crimm, P. D., Strayer, J. W., Baker, C. S.: Thoracoplasty, *Am. Rev. Tuberc.*, 1935, **31**:393.

pneumococcic pneumonia; one was unimproved; three were improved; and twenty were "cured." Of this latter number all have been symptom-free and have had negative sputa for more than one year; others in this group have been well and have been working as long as five years. Ironically, the one patient classified as unimproved had a relatively small cavity which after a very wide resection remained patent and continued to emit tubercle bacilli.

COMMENT

An effort has been made to present cases of pulmonary tuberculosis and tuberculous empyema which were suitable for thoracoplasty and in which there was reason to believe that the patient would be benefited by operation if not wholly cured.

We do not mean to infer that other methods are not available or that new and better methods may not be devised for the treatment of cavernous tuberculosis or tuberculous empyema, but certainly up to the present time thoracoplasty has been the most satisfactory procedure for reclaiming patients who would ordinarily have a short expectancy of life or, at the best, remain chronic invalids for the rest of their life.

The subject is necessarily very broad because of the nature of the disease itself, and no attempt has been made to go into lengthy detail on any particular phase of it other than to try and point out in a broad way the usefulness of the operation and the type of case to which it is adapted. The accompanying illustrations will possibly help to serve this purpose.

ELECTRICAL CONVULSION THERAPY IN MENTAL DISORDERS

GRANT E. METCALFE, M.D.
SOUTH BEND

Shock therapy has concerned the psychiatrist for several years. First came Sakels'[1] hypoglycemic shock therapy and later Meduna's[2] metrazol convulsive therapy. Because of the relative simplicity and ease of administration, the latter method has had the wider application, resulting in the investigation of other convulsion-producing agents. These include triazol, picrotoxin, coriomyrtin, ammonium, chloride, and others. These methods of therapy have stimulated numerous bio-chemical and neurophysiological research projects and have contributed to the knowledge of the nature of mental illness. It is probable that some day, as a result of these efforts, a better method of treatment of mental illness will result.

The alteration of the state or progress of mental disease by means of shock therapy is an accomplished fact. It is readily admitted that we do not fully understand the fundamental nature of this modern treatment, and it is difficult to evaluate good or bad results as accurately or as fully as our scientific experience demands. With the widening of our experience incident to the use of insulin shock and metrazol, and other chemical shock, we are made more aware of complications and dangers which we would prefer to eliminate. A step in this direction appears to have been taken by the use of electroshock.

Leduc[3] in 1900, Rabinovitch[4] in 1906, Weiss[5] in 1911, and in the last decade Clark and Wall,[6] Hess,[7] Chiauzzi[8] (a pupil of Cerletti's) noted the effects of electrically induced convulsions in experimental animals. It remained for Cerletti and Bini[9] to apply the evidence gained in previous research work in epilepsy in Genoa in which convulsions were produced in dogs by applying 125 volts of alternating current to electrodes placed in the mouth and rectum of the dogs, and to work out a technic to replace the injection of convulsant drugs in the treatment of the psychoses. Clinical application of electroshock spread from Italy to Germany and England, and within the past year to the United States and many other countries.

The method is, of course, only another way of applying Meduna's convulsive therapy. While the validity of Meduna's hypothesis concerning the existence of biologic antagonism between schizophrenia and epilepsy is still disputed, clinical application of convulsive therapy, in spite of its disadvantages, appears to be justified because of its ability to alter the state or progress of the psychoses. However, certain objections to metrazol convulsive therapy, such as fear and apprehension of the patient to the treatment, psychomotor excitement, vomiting, confusion and irritability, as well as the difficulties incident to intravenous administration, such as thrombosis, inaccessibility of veins in the obese, veins of poor caliber, etc., appear

---

[1] Sakel, M.: Neue Behandlungsmethode der Schizophrenie, Vienna, Moritz Perles, '35.

[2] Meduna, L.: Die Konvulsion therapie der Schizophrenie. Halle, A. S., Carl Marhold, '36.

[3] Leduc, S.: L'inhibition cérébrale electrique chez l'homme, *Arch. d'Elect. Medic.*, **10**:769-774 (Dec.) '02.

[4] Rabinovitch, L. G.: Sommeil electrique, Nantes, '06.

[5] Weiss, D.: *Bull. Soc. Internal. des Elect.* Paris **1**:417, 11.

[6] Clark, G. A., and Wall, T. F.: Unconsciousness Produced by Electric Currents. *Quart. J. Exper. Physiol.* **24**:85-94 (Feb.) '34.

[7] Hess, W. R.: Le Sommeil, *Compt. rend. Soc. Debiol.* **107**:1333-1364 (Aug. 5) '31.

[8] Chiauzzi, A.: Ricerche sporementala sull epilesirm cilmetodo di Viale Pathologia **26**:18-23 (Jan. 15) '34.

[9] Cerletti, U., and Bini, L.: Electroshock Treatment, *Boll. Acad. Med. Rom.* **64**:36 (May) '38.

to be wholly or in part eliminated by the use of electricity as a means of inducing convulsions. A very small number of deaths have been reported in cases treated with metrazol as a convulsant and, to the author's knowledge, no deaths have been reported as caused by the use of electricity. The incidence of fractures and dislocations appears to be considerably decreased because of the relative relaxation of the patient at the time of treatment. This absence may, in part, be due to the absence of the severe prolonged convulsions frequently observed when metrazol is used.

By treating patients in the general hospitals of the community, where electricity can be used as the convulsant, the problem of anxiety and terror which occurs between the injection of metrazol and the convulsion, and the consequent apprehension to further treatment, are eliminated, for the loss of consciousness is almost instantaneous. A great part of the brain is instantly stunned by the shock so that no pain-impulse set-up in the head reaches the thalamic centers in time to be consciously integrated. There is a retrograde amnesia for a period of about two minutes before the current is applied. Interrogation of treated patients, even a few minutes after they have regained consciousness, clearly demonstrates this amnesia. The nursing problem of psychomotor excitement after the metrazol convulsion is largely eliminated, for most of the patients wish to sleep. In no case where psychomotor excitement has been present has it ever reached the extent or lasted as long as has been observed in the metrazol post-convulsive state.

TECHNIC OF TREATMENT

Choice of Patient: All types of functional psychoses have been treated by your author, but despite favorable responses of certain of the psychoneuroses to convulsive therapy, this group has not, as yet, been treated.

Preliminary Studies: Each patient is examined carefully, both physically and neurologically. The following findings are considered contraindications to convulsive therapy:

1. Advanced heart disease, but cardiac disease and hypertension are not permitted to contraindicate treatment if the psychosis is sufficiently important to warrant shock therapy. In many instances cardiac improvement will follow the treatment, particularly where the psychosis results in insufficient nutrition. Bellet, Kirshbaum and Furst,[10] Groce and Cassiano,[11] after observation of electrocardiographic findings of treated patients, do not feel that electroshock is as harmful to the cardiovascular system as metrazol.
2. Generalized arteriosclerosis.
3. Most tuberculous lesions, active or healed.
4. Thrombophlebitis, acute or chronic.
5. Malignancy, active or "cured."
6. Bone disease.
7. History of convulsions.

Laboratory Studies: The usual laboratory tests are performed on all patients and other tests are done where indicated. In addition, an electrocardiogram is made and interpreted by a cardiologist who is acquainted with convulsive therapy.

Preparation of Patient: Usually the only specific requirement is that the patient shall not eat breakfast the morning of the treatment. Sedatives are discouraged because they make it more difficult to produce a convulsion, although not nearly as much as in cases where metrazol is used.

The patient may be treated in street clothes provided ties, collars, belts, and shoes are removed or loosened; however, the usual sleeping garment or hospital gown is preferred. The electroshock patient is not often incontinent of urine, and commonly the male patient does not ejaculate. No patient has yet been incontinent of feces.

Production of the Convulsion: The patient is laid on a wooden table covered by a firm pad or mattress. A pillow, sandbag, or folded mattress pad is placed under the thoracic segment of the spine. Assistants hold each arm in adduction and exert downward pressure over the shoulders. Another assistant manually restrains the knees. Electrode paste is massaged into the frontal regions laterally, and the electrodes are applied. The resistance in the circuit is then measured and usually runs between 500 and 1200 ohms.

Voltage determination is largely a matter of experience. Figures given by the Italian workers have proved of little help in this country or in England. Their upper and lower limits of 80 to 115 volts are, in general, too low. However, your author has observed adequate response in a few instances. Measurement of the head resistance may give some indication of the voltage to be applied, but exact calculation of dosage is useless because living tissues do not obey Ohm's law over a wide range of current strength, and after passage of the current the resistance is always much lower than before—a 30% fall is common. Despite this fall, passage of the same current always fails to produce a convulsion if none had been obtained. If the dose fails to produce a convulsion, either the voltage or the time (0.10 to 0.20 of a second) is increased with a pause of two to three minutes between trials. No more than three applications of current are administered in any one day.

Thus, ordinary (alternating) current is passed through the posterior part of the frontal lobes of the brain. To obtain most satisfactory results the current should pass through area 6 a B of Vogt in the middle part of the superior and middle frontal gyri.[9] To this area Foerster[12] has assigned a

[10] Bellett, S.; Kershbaum, A., and Furst, Wm.: The Electrocardiogram during Electrical Shock Treatment of Mental Disorders. *Am. J. Med. Sc.* **201**:167-177 (Feb.) '41.

[11] Groce, G., and Cassiano, P.: Electroshock Therapy. *Schizophrenie*, **7**:91-98 (Dec.) '39.

[12] Foerster, O.: Handbuch der Neurologie, Berlin, '36.

special function in the pathogenesis of epilepsy. Here one is apt to find the focus of slow waves as is obtained in the electroencephalogram in idiopathic epilepsy. A simple mouth gag of rolled gauze is placed between the patient's teeth, but in the case of an uncooperative patient it is inserted with the tonic yawn just before the convulsion.

As the switch is thrown and the treatment current flows, most patients give a quick generalized jerk. This is usually slight, but may be more marked in some cases. With the correct dose (Bini[9] maintains that the duration of the time of passage of the current is more important from the viewpoint of damage to the brain than the tension of the current) there is an immediate loss of consciousness and usually a convulsion occurs within one to thirty seconds. Being immediate, the onset of unconsciousness is not unpleasant, such as it is with the use of metrazol. If the dose is not great enough, there is only a loss of consciousness, with or without myoclonic movements. The grand mal convulsion resembles that produced by metrazol and other chemical agents. It is unusual for the electrically induced convulsion to last more than forty-five or fifty seconds. Generally the apneic period is short and respirations are quickly restored. The patient regains consciousness in five or ten minutes, and then he usually sleeps. The stuporous patient is rolled on his side to prevent aspiration of saliva.

The patient has no recollection of this episode, but usually recalls the details of the treatment before the administration of the convulsing current. Treatments are administered one to three times each week.

NUMBER OF TREATMENTS

The number of individual treatments varies considerably, the average is from ten to fifteen, but many patients respond with less. It is usually possible (in the case with a favorable outcome) to note improvement after five or six treatments. Depressive types respond more rapidly than other types of psychoses. The only criterion followed is to continue treatment until remission or improvement takes place, or until it is felt that nothing is being accomplished. Ordinarily treatment is not discontinued until twenty-five have been given without improvement. Fox[13] and von Braunmuhl[14] feel that there is no reason why remissions cannot be prolonged indefinitely with maintenance shocks.

COMPLICATIONS

Your author has observed no fractures or shoulder dislocations as reported by others. The previously described position of the patient and method of manual restraint is rigidly adhered to. Easily reduced dislocation of the jaw has been noted. As previously stated, no deaths have been reported. Bites of the tongue and lips are avoided by the use of the mouth gag previously mentioned. Muscular soreness is not infrequent after the first several treatments and usually can be relieved by massage. Headache is not a frequent complication, although it does occur, but usually disappears spontaneously within six to eight hours and can be relieved by the usual analgesics.

Memory defect is common for an hour or two after the convulsion. The patient is aware of this defect and complains of being unable to remember the date, the name of the physician, etc. At times this condition persists for several days, but it always clears up. The patient does not recall any details of the treatment beyond the time of administration of the convulsing current.

Some of the depressed patients develop a mild hypomanic period with increase in activity and with mild euphoria which rapidly clears up.

PATHOLOGY

Capillary hemorrhages, satellitosis, gliosis and demyelinization have been ascribed to the passage of electrical currents through the brain tissue. Marchand and Picard[15] stated that electric shock, although not severe enough to kill the patient, may cause lesions in the brain and slowly lead to a diffuse sclerosis, associated with some mental abnormality. Their observations were made in humans who were accidentally shocked.

Because of the absence of deaths as a result of electroshock therapy, no known histopathological investigations have been made as to the effects of electricity used in human subjects. While working with dogs, Bini[9] and Chiauzzi[8] produced convulsions with one electrode placed in the mouth and the other in the rectum, and they report severe brain damage. After using higher voltage than is used in man, Accorneo[16] found unimportant reversible brain changes in animals. Cerletti and Bini[9] and Kalinowsky[17] report no neuropathological changes in dogs. Recently Smith[18] and his associates, and others in this country, have reported punctate hemorrhages found in the brains of cats. This brings up the question of evaluation of brain changes in experimental animals. Newmann and Katzenelbogen[19] noted brain pathology in cats treated with insulin and metrazol, but also found similar changes in animals which served as

[13] Fox, F. E.: Clinical Experience in Electrically Induced Convulsions. *Brit. M. J.*, **1**:807-808 (May 18) '40.

[14] von Braunmühl, A.: Electrical Convulsions in Psychiatry. Münch. *Med. Wchnschr.* **87**:511 (May 10) '40.

[15] Marchand, L., and Picard, J.: L'action des Commontions electriques sur le system Merviux: Encephale **30**:229-249 (Apr.) '35.

[16] Accorneo, F.: L'istopatologia del sistema nervoso centrale nello shock insulinico. *Riv. di pat. Nerv.* **537**: 1-96 (Jan.-Feb.) '39.

[17] Kalinowsky, L.: Electric Convulsion Therapy of Schizophrenia. *Lancet* **2**:1232-1233 (Dec. 8) '39.

[18] Smith, L. H., Hughes, J., Alpers, B. J., and Hastings, D. W.: Electroshock Treatment in the Psychoses. *Am. J. Psychiat.*

[19] Newmann, M. A., and Katzenelbogen, S.: Experimental "Shock Therapies" in Cats with Insulin and Metrazol. Histopathologic Study. *Am. J. Psychiat.*, to be published.

controls. Such findings have also been noted by others. This leaves the whole question of brain damage dependent upon further histopathologic investigation and gives the feeling that damage to the brain incidental to therapy has not been proved.

Biochemical changes such as increase in blood sugar, increase in white blood cell count, rise in blood pressure, etc., parallels the changes observed when metrazol is used as the convulsant. Gonda[20] failed to find red blood cells in the spinal fluid of twelve patients.

RESULTS

Cerletti and Bini[9] report results approximating those obtained with metrazol. These reports were confirmed wholly or in part by Sagliani,[21] Fumarola,[22] Kalinowsky,[17] Shepley and McGregor,[23] Fleming, Golla and Walter,[24] Muller,[25] von Braünmuhl,[14] Fox[13] and Meggendorfer[26] abroad, and by Almansi and Impastato;[27] Kalinowsky and Barerra;[28] Smith, Hughes and Hastings,[29] and Gonda[20] in this country.

Your author's experience with this type of therapy tends to confirm the belief of others that the results approximate those obtained when metrazol is used as a convulsant agent. To date thirty-five patients have been subjected to this type of therapy, but sufficient time has not elapsed to draw definite conclusions or to report statistical data. All of the patients showed improvement, three have had a relapse but are responding to re-institution of treatment, where this has been possible.

SUMMARY

An attempt has been made to review briefly some of the history and pertinent data concerning the treatment of mental disorders by means of electrically induced convulsions. It should be emphasized that this type of therapy, like any other therapy of the psychoses, gives the best results in patients who have been ill less than six months. Particularly is this true in the schizophrenic group. Depressions, including the involutional melancholias, appear to be most responsive. Psychotherapy and some ability to control the environmental factors are necessary adjuncts to the treatment. In the majority of cases seen in private practice, this form of therapy can be carried out by a competent psychiatrist on an outpatient basis (some patients require short hospitalization), and in exceptional cases it can be carried out in the home. Commitment to a state hospital, with its attendant economic loss and handicap of stigmatization, can in many instances be avoided.

[20] Gonda, V.: Treatment of Mental Disorders with Electrically Induced Convulsions. *Dis. Nerv. Sys.* **2**:84-92 (Mar.) '41.

[21] Sagliani, G.: Eine neu Methode der Krampftherapie: die Elektroshocktherapie, *Dtsch z. f. Nervenheilk,* **149**: 159-168 (Aug.) '39.

[22] Fumarola, G.: Eine neu Methode der Krampfbehandlung in der Psychiatrie: der Elktroshock. *Psychiat. Neurol.* Wschr. **41**:87-88 (Feb. 25) '39.

[23] Shepley, W. H., and McGregor, J. S.: Electrically Induced Convulsions in Treatment of Mental Disorders. *Brit. M. J.* **2**:1269-1271 (Dec. 30) '39.

[24] Fleming, G. W., Golla, F. L., and Walter, W. G.: Electric Convulsion Therapy of Schizophrenia. *Lancet* **2**:1353-1355 (Dec. 30) '39.

[25] Müller, M.: Electric Shock Therapy in Psychiatry. Schweiz. *Med. Wchnschr.* **70**:323-326 (Apr. 13) '40.

[26] Meggendorfer, F.: Electric Convulsion Therapy of Psychoses. *Deutsche Med. Wchnschr.* **66**:1151-1155 (Oct. 18) '40.

[27] Almansi, R., and Impastato, D. J.: Electrically Induced Convulsions. *N. Y. State J. Med.* **40**:1315-1316 (Sept. 1) '40.

[28] Kalinowsky, L., and Barerra, S. E.: Electric Convulsion Therapy in Mental Disorders. *Psychiat. Quart.* **14**:719-730 (Oct.) '40.

[29] Smith, L. H.; Hughes, J., and Hastings, D. W.: First Impressions of Electroshock Treatment. *Penna. Med. J.* **44**:452-455 (Jan.) '41.

216 ODD FELLOWS BUILDING.

ABSTRACT

REMOVAL OF THYROID GLANDS EFFECTIVE IN 2 CASES OF DIABETES INSIPIDUS

Two out of 3 patients whose thyroid glands were removed as a means of treating diabetes insipidus, a comparatively rare disease marked by excessive thirst and profuse and frequent passage of urine containing no sugar, have been relieved of the condition since the operation was performed more than five years ago, Harry Blotner, M.D., and Elliott C. Cutler, M.D., Boston, report in *The Journal of the American Medical Association* for June 21.

The two men explain that available knowledge indicates "that the thyroid gland is a factor in maintaining water balance and possibly plays a role in the regulation of the intake and output of fluid in patients with diabetes insipidus. It appeared of value to apply this knowledge clinically in the treatment of diabetes insipidus. Consequently, total thyroidectomy was performed in 1935 on 3 patients with diabetes insipidus. This paper reports the results obtained on these patients after a five year interval."

The condition in the 2 relieved patients, men of 27 and 29 years of age was associated with postencephalitic Parkinson's disease. In the case of the third patient, a woman of 66, who received no relief, there appeared to be no precipitating cause for the disease. The two physicians believe that accessory thyroid tissue is present in this woman, inasmuch as the thyroidectomy had none of the effects that usually follow the operation.

BLOOD STAIN OF THE CORNEA*

BERNARD J. LARKIN, M.D.
INDIANAPOLIS

In December, 1930, I presented before this Society a paper entitled "Blood Stain of the Cornea."[1] In the paper I presented a case which I had shortly before observed, and reviewed available literature on the subject. Recently my attention has again been directed toward this particular ophthalmic phenomenon so that I was prompted to review the literature again. This time, as in the first instance, I have found the literature surprisingly meagre. Few textbooks make more than the merest reference to the infiltration or staining of the cornea by blood pigment and, so far as I have been able to ascertain, but one case report[2] has been made since the publication of mine in July, 1931. (Recently Lehrfeld & Brav reported a case.[3]) This one report was made by D. J. Wood, Capetown, South Africa, being thus geographically about as far removed from my patient's habitation as the rotundity of the earth will permit. Wood's summary is so logical and well-expressed that I will reproduce it *verbatim*:

"Resume:

"(1) A sharp and severe blow on the eyeball, causing either tears in the iris or separation of the iris from its ciliary attachment.

"(2) Bleeding from the larger iris vessels, so that the anterior chamber becomes full of blood and the intraocular tension is raised.

"(3) Retention of the condition till after the occurrence of hemolysis, so the soluble hemoglobin is forced or passed from the space of Fontana into the corneal tissue.

"(4) Gradual clearing away of the derivatives of hemoglobin from the unstained edge and the posterior surface of the cornea, the last visible stain being in the center of the anterior surface of the substantia propria.

"(5) Other damage may be associated with the staining, such as the rupture of the lens capsule, subluxation of the lens, or the injuries to the retina and choroid."

In his comments, Wood calls attention to "the curious trap into which even experienced ophthalmologists have fallen, owing to the strong resemblance which is shown by these cases to a semi-opaque lens displaced into the anterior chamber. "I remember," he adds rather naively, "the late Mr. John Cooper, at Moorefields' Hospital, undertaking to eat his hat if the patient had not a dislocated cataract, and I have known an attempt made to break up such a supposed cataractous lens." Both follow blows, but a lens displacement forward as the result of a direct blow is rare. Unless prevented by edema of the epithelium, the slit-lamp will show that the cornea is clear, but in blood-staining of the cornea that structure will be opaque throughout.

This same thought was earlier expressed by Treacher Collins,[4] who said that the appearance presented when a large circular area of the cornea is stained a rusty brown, with a circle of clear cornea about it, clearly simulate those of an amber colored lens dislocated into the anterior chamber.

Blood staining of the cornea occurs usually after traumatic injury, but is occasionally seen in blind eyes when there has occurred any extensive hemorrhage into the anterior chamber. The brown or greenish discoloration originally extends throughout the cornea, but is gradually absorbed at the periphery so that "a narrow ring of clear cornea is seen in its entire circumference, the central stained portion ending by an abrupt well-defined margin." It is when the peripheral ring of the cornea begins to clear that differentiation from an anterior chamber filled with blood first becomes possible. When the entire surface of the cornea is infiltrated with the rusty brown stain, it is impossible to distinguish it from the simpler condition with which it is always associated.

The condition has been very thoroughly studied and described by Donata Domi[5] in his thesis presented for a degree at the University of Geneva in 1929. This work was not available when I wrote my first paper on corneal staining, so that it may be well at the present time to devote a little attention to his conclusions. At the outset he emphasized the resemblance which the clinical course of the corneal blood staining present to "bruising" as epithelial surface elsewhere in the body. The evolution of the stain upon the cornea is far slower than that of a similar discoloration of the cutaneous surface adjoining the eye, even when both are caused by the same accident, for example, when a handful of stones has been thrown in the patient's face. Several weeks, at the very least, must elapse before there is any indication of clearing at the periphery of the cornea, whereas the severest cu-

* Presented before the Indiana Academy of Ophthalmology and Otolaryngology, French Lick, Indiana, April 2, 1941.

[1] Larkin, B. J.: Blood Stain of the Cornet. *J. Ind. St. M. A.* XXXI: 365, (July), 1931.

[2] Wood, D. J.: Staining of the Cornea by Blood Pigment. *South African Med. Jour.* IX: 142, (March 9), 1935.

[3] Lehrfeld, Louis, and Brav, Solomon: Blood Staining of the Cornea Due to Sub-conjunctival Hemorrhage. *Arch. Oph.* **25** (Feb.), 1941.

[4] Collins, Treacher F.: Research into the Anatomy and Pathology of the Eye. London, H. K. Lewis Company, 1896.

[5] Domi, Donata: Infiltration Sanguine de las Cornea-Keratohema. Thesis No. 1284, University of Geneva, 1929.

taneous bruising will fade out within a few days.

It is this writer's opinion that the increased ocular tension may be to some extent responsible for this slow evolution of the lesion. Ocular tension, he observed, is generally elevated at first, especially in cases with accompanying hyphema. This increase in intraocular tension is accounted for by the obstacle to the flow of aqueous humor which the extravasation of blood into the anterior chamber brings about. The hypertension is lowered as soon as resorption of the hemorrhage occurs, and the return to normal tension takes place coincidentally with the re-establishment of the normal circulation in the anterior ciliary vessels. Likewise, at the same time the corneal infiltration begins to disappear. Participation of the ciliary body in the lesion of the globe may, to a certain extent, account for this manifestation.

Of etiology, Domi says emphatically that no factor other than trauma is of any importance. No one has ever seen a spontaneous hemorrhage of the cornea for the good reason that this membrane does not contain any blood vessels. If any blood penetrates it, it must of necessity seep in from some other part of the eye, and such infiltration is impossible unless there has been a previous breach of the cornea's continuity. Such a break may be the result of extreme violence, or it may be the aftermath of an operation performed with the greatest skill and delicacy. Iridectomy is particularly likely to produce such an injury despite the utmost precaution to avoid it.

Such trauma, either accidental or operative, quickly leads to venous ptosis in Schlemm's Canal and the anterior ciliary vessels, or may even eventuate in rupture of these vessels. In certain cases there follows a bloody suffusion, the blood extravasating into the cornea across more or less relaxed sclero-corneal fibers.

If the mechanism of blood staining of the cornea is as simple as that, why do we not have it more often when the eye is traumatized? Domi maintains that though trauma is essential to the infiltration of blood between the layers of the cornea, only under certain conditions is this infiltration possible. Among the contributory factors he lists the anatomical structure of the particular segment of the membrane which is injured as this varies considerably in different subjects. The permeability of the "sclero-corneal trabecular system," depends upon the state of contraction or relaxation of the ciliary muscle as well as upon the intraocular tension, which in his opinion plays the predominant role in the mechanism of blood staining of the cornea. This discoloration he regards as practically a clinical entity in that he proposes for it the generic name—"keratohema."

Domi's work seems in a fair way to become classic, as it is actually the only independent investigation of blood staining of the cornea which has been undertaken since that of Treacher Collins in 1895—more than 40 years ago. None of the textbooks, either new or in new editions published since my paper, add so much as one word to what they had said before 1930.

Concerning treatment, everyone is silent. In my own experience, no treatment is of any value. Physician and patient must content themselves to await the gradual clearing of the cornea which in most instances has been complete even though several days elapsed during the process. So long as discoloration is visible there is bound to be more or less interference with vision. In some of the case reports it is noted that normal vision was never regained. This condition depends upon the severity of the trauma originally producing the corneal staining, and also upon the condition of the eye before the accident or operation took place.

In conclusion, I would urge that ophthalmologists generally give more attention to this manifestation just discussed, and take pains to make full pathological and clinical reports of any cases coming under their notice. The lesion is so very uncommon, as the dearth of literature about it would seem to indicate, yet from the patient's point of view—especially in the case of women—it is so unsightly and slow in clearing as to be more distressing than many graver conditions.

Further investigation may show us how to prevent the occurrence, especially after cataract operations, and also how the clearing process may be hastened after the infiltration of blood has taken place. To this end, all available data should be put on record.

305 HUME-MANSUR BUILDING.

YOU WILL NOT WANT TO MISS—

THE SUPERIOR PROGRAM AND ENTERTAINMENT OFFERED IN INDIANAPOLIS AT THE 92ND ANNUAL CONVENTION OF THE INDIANA STATE MEDICAL ASSOCIATION

SEPTEMBER 23, 24, 25

(Complete program in this issue)

UNEXPLAINED FEVER*

R. E. MITCHELL, M.D.
INDIANAPOLIS

Patients with continuous low-grade fever lasting months or years and who are otherwise well frequently present perplexing problems to the clinician. Fever of obscure origin is a subject of great practical importance to all members of the medical profession, regardless of the type of practice. These cases of low-grade fever and fatigue are baffling problems to the diagnostician.

Many attempts at diagnosis fail through lack of an orderly plan, although the cause of fever may be unexplained after exhaustive studies. A careful and comprehensive history of the patient, of the development of the present illness, and a review of the past history and especially of previous infections, and a thorough physical examination, are extremely necessary.

Even after prolonged fruitless investigation, one hesitates in most cases of this nature to dismiss the matter lightly lest some unrecognized or occult lesion be present. Yet few physicians have the opportunity and few patients the time and money necessary for investigation and observation over long periods. The patient with such a condition often becomes dissatisfied with the negative results of repeated examinations by his own physician, and commences a tour to a long series of physicians. As often happens, each physician approaches the case from a different point of view and arrives at a different conclusion until the patient is alarmed by the array of suggested diagnostic possibilities, and if not already neurotic, may become so. Besides this, the patient is often successfully deprived of teeth, tonsils, and thyroid gland, is subjected to other needless procedures and operations, is regarded as a potential invalid, and is obliged to lead an unnecessarily restricted life.

The investigation of unexplained fever often exhausts the patience of the physician, the patient, and the pocketbook. It hardly seems possible, but small series of cases reported show that the "batting average" in truly obscure fever is hardly more than fifty per cent. However, there is no subject more intriguing in medicine.

PHYSICAL EXAMINATION

Physical examination may disclose a patch of consolidation in the lung, an ethmoid sinusitis, an inflamed ear drum, or dental sepsis. Tenderness and some rigidity in the upper right quandrant of the abdomen may lead to the discovery of some infection of the biliary tract. A careful pelvic examination may disclose a low-grade salpingitis, an ovary descended and on a twisted pedicle, an endocervicitis, or Bartholinitis. Examination of the prostate gland and its secretions may reveal inflammation. Many cases of fever are often due to respiratory and urinary tract infections.

However, in a small group of patients with fever, the diagnosis may still remain in doubt even after the most painstaking history and complete physical examination and laboratory procedure.

Tuberculosis, poliomyelitis, and smallpox must always be kept in mind. The problem of poliomyelitis is always with us, especially at this time of year. It is the bugbear of every physician. Every minor respiratory and digestive upset with fever and pain in the neck and back must put us on guard, even to the extent of performing a lumbar puncture if the suspicion is strong.

An x-ray film is usually the deciding factor to rule out pulmonary tuberculosis on every patient with an unexplained fever, and certainly he is entitled to this examination. An area of atypical pneumonia without physical signs may be revealed only by the x-ray. Tuberculosis of abdominal glands as well as tuberculous peritonitis may remain undiagnosed for a long time. The use of the tuberculin test or Mantoux is being neglected entirely too often in all patients with obscure fever, because of the high percentage of reactors. The unjust criticism has thrown a "wet blanket" on its being used extensively. It is difficult to evaluate except in infants and young children. A negative Mantoux may be of significance in ruling out tuberculosis; when positive, it indicates only infection at some time.

Clinical manifestations of undulant fever are so varied that the most important step in the diagnosis is to think of it. Clinical features are the gradual onset of weakness, fatigue, sweating, chilliness, and aching, especially of the joints, in patients who do not appear very ill, even when confined to bed. Physical findings are surprisingly few. A positive agglutination test after the second week usually confirms the diagnosis.

Acute rheumatic fever, with low grade fever, with migratory joint pains, and slight redness and swelling is often overlooked.

Deep seated abscesses may occur in many locations and are accompanied by irregular fever, leukocytosis, and frequently, progressive anemia. The role of neoplasms as a cause of fever is well known.

Certain patients with obscure forms of Hodgkin's disease and other types of malignant lymphoma may reach the autopsy table before the course of their fever and downhill course is apparent. Enlargement of the peripheral glands and spleen with anemia, but no evidence of leukemia will usually lead to a lymph node biopsy and a correct diagnosis by a competent pathologist.

Although malaria is not very common in this

* Presented before the Indianapolis Medical Society, December 17, 1940.

country, occasional cases seen, especially after motor trips, may elude our diagnostic efforts. If ushered in by shaking chills and high fever recurring every other day, and accompanied by a palpable spleen and an absence of leukocytosis, tertian malaria immediately comes to mind. Repeated searches and blood smears for the parasite may be necessary.

Infectious mononucleosis is a disease which has caused great confusion and much embarrassment. The development of fever with soreness and sometimes ulcerations of the throat, and enlargement of the spleen, leads to a routine blood count. An increase in the total white blood cells and always a marked increase in the lymphocytes is found.

Tularemia has been reported in all parts of the United States. If there is a history of handling or dressing wild rabbits or other rodents and there is an indolent ulcer on the hand, with an enlarged lymph node and fever, this diagnosis must be considered. Agglutination test with the patient's serum will settle the diagnosis.

Typhoid fever is often undiagnosed until an embarrassing period of time has elapsed through lack of a definite plan or persistence in laboratory studies. A leukopenia with the appearance of rose spots and a palpable spleen, and a positive Widal after two weeks have elapsed, cinches the diagnosis. A blood culture taken the first week of fever is even more convincing.

Rocky Mountain spotted fever, typhus fever, tularemia, and malaria should likewise be diagnosed through the aid of the laboratory.

There are many inexpensive laboratory tests that a doctor can do in his own office. The skin tests include the tuberculin, the test for undulant fever, and the less frequently used tests for tularemia and trichinosis. It is certainly not difficult to make a white blood count or sedimentation test or a urinalysis in the office.

In some cases, abnormalities of temperature appear to be related to obscure disturbances of the endocrine system. The fever of hyperthyroidism is well known. Changes in temperature in some women are clearly related to the menstrual period or ovulation.

PSYCHOGENIC FEVER

When applying the term psychogenic fever to the temperature elevation observed in some patients, the following concept must be kept in mind. That while the initial stimulus causing the fever is probably psychic, nevertheless, an unusual maladjustment of the thermoregulation must be predicated. Often we are dealing with patients with an unstable heat regulating mechanism. Psychic stimuli and thermoregulatory maladjustment are considered the etiological factor. The diagnoses in such cases are made not only by the exclusion of organic disease, but also by the experimental production of fever with emotional stimuli.

Douthwaite[1] recently suggested a broad classification of perplexing fevers. His first group is the endocrine, in which the thyroid is the only member that at all frequently gives rise to slight but persistent pyrexia without obvious signs. Second, fevers of toxic origin, which includes degenerative new growths, cardiac infarctions, alcoholic hepatitis, and certain drugs taken to reduce weight. The third group comprises fevers of psychic origin. The fourth group is the largest: it includes all fevers of microbial origin, which agrees with the observation of Alt and Barker.[2] He places infective endocarditis, rhemuatic fevers, staphylococcic infections, food infections, and tuberculosis especially high.

One hundred cases of long continued low-grade fevers of unknown origin were studied in the Mayo Clinic for eleven years. Clinical records of these cases were analyzed in regard to age, sex, occupation, fever characteristics, associated symptoms, general appearance, neurotic tendencies, the presence of foci of infection, the course of the disease, and the outcome. Such fever is almost three times as frequent in the female as in the male, and occurs most frequently between the ages of twenty and forty years, at that period of life in which the physical and mental strain is probably greatest. Focal infection was present in thirty-five per cent in this series, but removal of foci, although often helpful in the individual case, did not increase materially the percentage of recoveries. Neurogenic manifestations were pronounced in at least twenty-five per cent of this series.

To recapitulate, it is always essential to search for underlying causes, whatever their nature. Among these may be mentioned a number of infections, chiefly tuberculosis, rheumatic infections, subacute bacterial endocarditis, undulant fever, malaria, tularemia, typhoid, Rocky Mountain spotted fever, infectious mononucleosis, poliomyelitis, smallpox, and possibly focal infections which may be present for long periods with minimal clinical symptoms and signs. A number of other conditions must also be considered, such as malignant diseases, Hodgkin's disease, renal disease, hyperthyroidism, diabetes, pregnancy, menstruation, dehydration, chronic poisoning, heart failure, sinusitis, and diseases and tumors of the brain and spinal cord.

All of us have observed numerous patients with prolonged fevers who have become well without a diagnosis being made.

Finally, I must pay my respects to the sulfanilamides which have made the treatment if not the solution of cases of obscure fever so much more satisfactory in recent years. We have better weapons now, and none of us will regret too greatly a diagnostic mystery if we are able to cure the patient.

---

[1] Douthwaite, A. H.: Pyrexia of Obscure Origin, *Lancet*, 1:1320, (June 8) 1935.

[2] Alt, Howard L., and Barker, Herbert M.: Fever of Unknown Origin. *J. A. M. A.* Vol. 94, (May 10) 1930.

3419 EAST TENTH ST.

CANCER OF THE LUNG

ROBERT B. SANDERSON, M. D.
SOUTH BEND

Cancer does not heal spontaneously. The significance of this statement can not be overemphasized. Cancer of the lung is no exception. The patient who has a malignant disease of the lung can look forward to very little except a relatively rapid but very uncomfortable death. Since these things are true, it is obvious that delayed or protracted treatment is practically useless and can not be excused in the light of our present knowledge. It is, however, only recently that successful efforts have been made to treat malignant diseases of the lung.

In 1895 when Osler[1] was preparing a revision of his first edition, he wrote about lung cancer and discussed the etiology and the symptoms. *Treatment*, however, was notably omitted from the work.

Between that time and 1933 the knowledge of lung cancer was greatly extended, particularly regarding the details of the pathology, and repeated attempts were made to successfully treat the condition. These attempts were, for all practical purposes, failures. X-ray which had proved to be of definite value in neoplastic diseases in other parts of the body was unsuccessful in the treatment of pulmonary cancer. In fact the reactions following treatment were frequently so severe that physicians hesitated to recommend the treatment. Surgery was for the most part unsuccessful because the tumors were usually advanced at the time of treatment, and if they were not advanced they usually had invaded a sufficient amount of the lung so that lobectomy and partial removal of the lung was unsuccessful in extricating the entire tumor.

In 1933 when Graham and Singer[2] successfully removed an entire lung because of cancer, and the patient lived, the treatment of a hitherto fatal disease advanced to a point where the condition could no longer be considered inevitably fatal. The immediate result of this operation, which incidentally was one of the dramatic moments in thoracic surgery, was to encourage diagnosticians to find the disease early.

The development of a method of treatment of a hitherto fatal disease invariably stimulates interest in the disease. It was emphasized by these authors, in reporting their successful removal of the lung, that between five and ten per cent of all carcinoma is primary in the lung or bronchus. This emphasizes the relatively high incidence of cancer of the lung as compared with cancer elsewhere, and it particularly emphasizes the fact that the diagnostician must keep the condition constantly in mind.

It has been shown that cancer of the lung occurs fully as frequently as cancer of the stomach, or perhaps more so, and recent studies emphasize that cancer of the lung is obviously on the increase. The reason for this is not known. Numerous explanations have been offered, none of which appear to be satisfactory.

The best that a patient with cancer of the lung has to look forward to is a few months of gradually increasing respiratory distress, cough, loss of weight, suffocation, strangulation, and death, and it is obvious that any success in the treatment of this condition depends as much upon the early recognition of the condition as upon the proper method of treatment being instituted after the diagnosis is made.

Death is not the only thing that the patient with cancer of the lung has to face, and in some cases death is not the most disconcerting factor for it comes as a relief to a large number of such cases when their symptoms have developed to the point where they are in constant distress because of inability to get air. The constant hacking cough, the persistent pain, the respiratory distress, and the gradual, slow but inevitable suffocation is one of the most distressing experiences that anyone can encounter. The distress is so severe that the coma which inevitably precedes the unfavorable termination of the patient usually is experienced as a relief from pain and discomfort.

Now that it is known that *early* cancer of the lung can be treated successfully by complete surgical removal of the lung, it is necessary that every suspected case should be examined thoroughly and carefully lest treatable cases become untreatable.

It is worth while to devote some time to the consideration of the rapidity with which these tumors develop. Generally speaking, it may be said that death will follow the early symptoms of cancer of the lung within twelve months in the absence of successful treatment. Occasionally a patient will go along for a longer period of time, even up to a few years. However, the nature of the tissue in which the tumor is growing, and the nature of the tumor itself, are usually such that the time of development does not exceed one year.

It is true that carcinoma of the lung may progress considerably before symptoms develop. This, however, is relatively unusual since fully seventy-five per cent of these tumors are primary in the bronchus and any pathology in the bronchus, however small, is likely to produce symptoms. It may be assumed that cancer of the bronchus and lung will demonstrate symptoms early.

Tumors arising in the pleura and parenchyma may have as their first symptoms shortness of

---

[1] Osler, William: The Principles and Practice of Medicine, 2nd Edition. New York, D. Appleton & Co., 1896.

[2] Graham, Evarts, and Singer, J. J.: Successful removal of an entire lung for carcinoma of the bronchus, *J.A.M.A.*, 1933, CI, 1371-1374 (October 28).

breath, pain, or pleural effusion. Bronchial tumors will make the patient think he has a severe cold, or, as he will say, "something in there I just can't cough out." Invariably the patient believes he has had a cold. He will usually describe it as the "flu" or an attack of bronchitis, but there is an unusually significant fact about this particular symptom in that it almost always develops without any evidence of respiratory infection except the cough.

Patients with pleural effusions associated with tuberculosis may have no respiratory distress and yet the lung will be grossly collapsed, while a similar effusion associated with bronchial or lung cancer, and particularly aggravated by bronchial irritation, will produce marked dyspnea which prevents the patient from lying down and interferes greatly with his rest.

The symptoms and course of a typical case of cancer of the lung is illustrated in the following case report:

N. L., a man fifty-six years of age, noted in February, 1941, that he had symptoms of bronchitis. He thought at the time that he had a cold and noted that his principal symptom was cough. This symptom continued for about three weeks during which time he proceeded to conduct his business and made several trips through the country as was his custom. After about three weeks of this symptom, his family prevailed upon him to seek medical advice, which he did, and at that time he was treated for a respiratory infection, presumably a bronchitis. It appeared that the treatment was successful, for the symptoms began to improve and the sensation of a ball in the bronchus disappeared. The patient had no fever and, except for the persistence of the cough, he was relatively free from distress. He did, however, return to his home, and was not completely relieved of the cough. Palliative procedures were of no avail and there was evidence of some shortness of breath which was not considered sufficiently significant to be treated medically.

Nothing more was done until early in May at which time the patient noted that he was getting rapidly short of breath. It was necessary for him to sit up to breathe; he had pain in his side, and some distress in his shoulder; he was rapidly becoming weaker, and he sought medical advice.

Examination at that time revealed evidence of an extensive pleural effusion in the right pleural cavity, and about 1,000 cc. of bloody fluid was removed. A tentative diagnosis of malignancy of the lung was made at this examination, and the patient was referred to the hospital for further study.

He was admitted to Healthwin Hospital where a second pleural fluid aspiration was performed, and cancer cells were found in this fluid. Bronchoscopic examination revealed almost complete obstruction of the right bronchus, with a wart-like tumor growing from the anterior wall of the bronchus toward the bifurcation of the trachea. There was no obstruction, however, to the left bronchus, and the trachea was normal except for the hyperemia and irritation incident to the coughing.

At this time the patient developed fever of 102 degrees which was associated with the obstruction of the bronchus and atelectasis beyond. Surgical consultation was obtained, and it was decided that the tumor had developed beyond the stage of successful surgical treatment; hence, the patient was treated palliatively. It was practically impossible, however, to obtain symptomatic relief. The dyspnea was marked, repeated aspirations of the fluid were unsuccessful, and the patient died about fourteen days after admission to the hospital. Autopsy was not obtained.

This case illustrates practically everything that usually happens to a patient with cancer of the lung or bronchus except successful treatment, and it can not be said that successful treatment of this condition at this time is usual; in fact, successful treatment is rather unusual for the reason that the condition is difficult to diagnose and is so illusive that the patient has a formidable and advanced malignant disease before he is aware that he is sick.

The peculiar nature of the cough can not be overemphasized, and the significance of a bloody pleural effusion, pain, and hemoptysis, must be repeated over and over again for unless these things are considered significant and are thoroughly and completely investigated, we can not hope to diagnose cancer of the lung at a time when it can be successfully treated.

Berliner[3] states that one-third of hemorrhagic pleural effusions are not malignant, but this statement also emphasizes the fact that two-thirds *are* malignant. Obviously, any pleural effusion containing blood should be exhaustively investigated for cancer.

Bizarre symptoms occasionally associate themselves with lung tumors. Joint manifestations have been noted and may be relieved after the removal of benign tumors. Chronic pneumonia frequently confuses the diagnosis. Abel[4] refers to a case whose only symptoms were weakness and secondary anemia.

How are we to distinguish the significance of the cough associated with early cancer of the bronchus or lung from the thousand and one other coughs which have, unfortunately, become a part of civilized man's presumably normal or near normal physiological processes? Anyone attending a meeting of any considerable size must be impressed with the almost universality of cough. It is impossible at this time to say how much of this coughing is definitely associated with respiratory pathology and how much may be associated with functional disturbances which cause the individual to cough, but the presence of cough in an individual is so common and so universal that it nearly always is disregarded entirely. There is, however, a significant difference in the cough, particularly if a tumor is present in the bronchus. The patient frequently describes his cough as being dry, brassy, or nonproductive. Its constancy is of particular interest and is often remarkable. Anyone who has seen a considerable number of cases with cancer of the lung will have been impressed with the frequency and the persistency of the cough. Often the patient can hardly say two or three words without coughing.

As a rule, very little can be raised from the

[3] Berliner, Kurt: Hemorrhagic pleural effusion, *Ann. Int. Med.*, 1941, XIV, 2266-2285.

[4] Abel, J. A.: Personal Communication.

bronchi with this cough, yet the irritation may cause considerable sputum which, incidentally, may contain cancer cells. The cough which is associated with bronchial cancer usually does not persist for any length of time before there is some evidence of hemoptysis. This is such an important symptom that every case of hemoptysis should be investigated lest it be the first symptom of cancer of the lung. In the event that the tumor is located in the bronchus and develops to such size that the bronchus is fairly well obstructed, atelectasis will develop in the lung beyond the obstruction and infection is likely to develop. This infection will cause the patient to have symptoms of lung abscess, or localized pneumonia, and there will be fever and intermittent expectoration of pus. This situation when present invariably confuses the diagnosis for the reason that the patient is almost sure to be considered to have a localized pneumonia or lung abscess.

During the early development of the tumor, some patients describe a peculiar "ball valve" sensation in the bronchus. This, however, may pass before the patient seeks advice, and as the tumor increases in size the symptoms may subside for a time, which gives the patient the impression that he has improved.

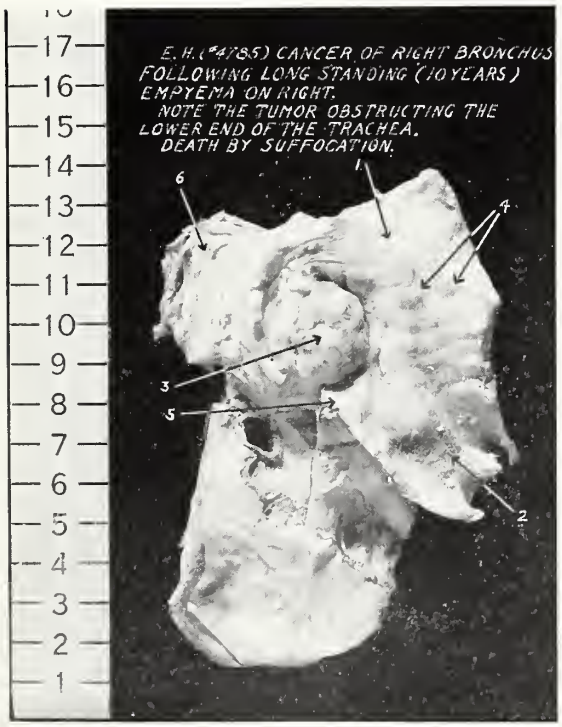


Figure 1. Case 2: 1. Lower portion of the trachea. 2. Left bronchus just below the bifurcation. 3. Tumor, adeno-carcinoma. 4. Indentation on the left side of the lower portion of the trachea caused by pressure of the tumor from the right. This emphasizes the degree of obstruction. 5. Bifurcation of the trachea. Note the right bronchus contains a tumor. 6. Right lung and regional glandular metastasis very hard and fibrotic, lung has been collapsed for 10 years secondary to empyema. (This scale is in centimeters.)

The symptom of dyspnea is remarkable in that it usually is rather marked although there appears to be ample respiratory tissue to care for all of the needs of respiration. The dyspnea is in all probability accentuated to some extent by the frequent coughing and by the presence of pleural effusions, but even then the symptom is more marked than it should be if the decrease in respiratory tissue was the only thing that had taken place. There must be a very definite lessening of the entire respiratory function in cancer of the lung and bronchus in an amount over and above that which is entirely mechanical.

The confusing nature of malignant disease of the lung and bronchus and the difficulties of diagnosis may be emphasized by the following case:

E. H., a woman, age 46, was admitted to Healthwin Hospital, giving a history of having had an empyema for ten years. During these ten years the empyema had never healed. The right lung was grossly collapsed. There was evidence of pneumothorax with a few adhesions in the upper portion of the chest. The inside of the pleural cavity could be inspected through the opening where a rubber tube had been inserted for this period of ten years. Except for a small amount of drainage from this area, the wound was relatively clean. The patient had enjoyed fair health in spite of this situation, and had been able to carry on the usual activities, including her house work, up to about four months previous to admission when she developed cough and dyspnea. At the time of admission she appeared to have lost some weight and was in severe distress. Cough and dyspnea were the principal symptoms. Her condition was poor.

These symptoms were interpreted to be associated with the empyema. An effort was made to investigate the empyema, but no satisfactory explanation could be made of the persistent cough which was almost constant and had not been present more than about four months. The patient's symptoms propressed so rapidly and were so exaggerated that satisfactory examination was impossible.

Bronchoscopic examination made elsewhere before admission had failed because of technical difficulties and the poor condition of the patient. An attempt to free the lung, in an effort to restore the mediastinum to normal position because of deviation of the structures to the side of the empyema, failed to relieve any symptoms, and the patient died of suffocation without a diagnosis as to the cause of the bronchial obstruction.

Autopsy revealed in the bronchus a remarkable tumor growing out of the collapsed lung. The collapsed lung was completely atelectatic and was almost of the consistency of wet leather. The accompanying photograph of the tumor (Fig. 1) illustrates bronchial cancer in its classical and advanced position.

The physical examination of a patient having malignant disease of the lung will in all probability give very little or no information unless the condition is so far advanced that treatment is useless. X-ray of the chest usually will give some valuable and definite information, but it must be emphasized that in x-ray of the chest, as in x-ray of other parts of the body, we are invariably dealing with probabilities and, unless the tumor is very definite, it is impossible to be certain about the diagnosis. As we

have emphasized before, the fluid in the pleural cavity can always be examined, but in questionable cases of lung or bronchial cancer there is one examination which is urgent and very important—that is bronchoscopy.

Bronchoscopy is the most satisfactory and most valuable of all of the diagnostic procedures used in verifying cancer of the lung. It is most likely to give definite information for cancer of the lung is, in the majority of cases, found in the bronchus. Furthermore, this method of examination gives the physician an opportunity to view the tumor directly and to remove tumor tissue for examination. It must be emphasized, also, that a single bronchoscopic examination should not be considered conclusive even though no pathology is seen. If the symptoms persist or the x-ray findings are suspicious, repeated bronchoscopic examinations at intervals of two, three, or four weeks are very definitely indicated. The bronchoscope is, in the opinion of the writer, a neglected instrument, and not only should its use be more frequent but more diagnosticians should have it as a part of their regular armamentarium.

It is impossible to diagnose cancer of the lung unless we are on the alert for this condition. If we remember the high incidence of the disease, the fatal nature of its course, and the increasing frequency with which it is found, then we will be on the lookout for the condition when a patient presents himself with a cough that is different or with other respiratory symptoms which require investigation. We cannot diagnose tumors of the lung unless their possible presence is kept in mind.

We must consistently and persistently avail ourselves of the facilities of bronchoscopic examination. Specimens of tumor and fluids must be examined.[5] Pleural fluids must be investigated, and idiopathic hemoptyses must be considered serious until proved otherwise. Chronic pneumonias, lung abscesses, and bizarre shadows in the x-ray must be suspected as being tumors until ruled out by a definite diagnosis. Early tumors of the lung can be removed surgically with success. Late tumors of the lung mean an inevitable and unhappy death.

SUMMARY

The incidence and increasing frequency of cancer of the lung is reviewed, and the importance of early diagnosis and appropriate surgical treatment is emphasized. The frequency of advanced cancer of the lung is entirely a problem of late diagnosis which is due partly to the fact that the patient does not come to the physician when early symptoms appear and partly to the fact that the high incidence of cancer of the lung is not generally recognized by the profession. Successful surgical treatment of early lung cancer *is* possible, and this is the only hope for successful treatment.

[5] Rabinovitch, Jacob, Hochbert, Lew A., and Lederer, Max: Primary (Broncho-genic) carcinoma of the lung. *J. Thoracic Surg.*, 1940, IX, 332-345.

ABSTRACT: DEVISE QUICK TEST OF EFFECT OF SULFAPYRIDINE ON PNEUMONIA

A rapid test which determines whether or not the type or strain of organism involved in a case of pneumonia may be resistant to sulfapyridine has been developed by Frederick J. Moore, M.D.; Roy E. Thomas, M.D., and Anson Hoyt, M.D., Los Angeles, they report in *The Journal of the American Medical Association* for August 9. The test is based on the inoculation of sputum from pneumonia patients into treated and untreated mice. Present methods of determining resistance require several days and time is a vital element in the treatment of the disease.

"Pneumococci," they say, "differ profoundly in their sensitivity to the sulfonamides: resistant strains occur in nature; sensitive strains may become resistant when they are exposed to the drug in either the test tube, mouse or human being; resistant strains are probably permanently resistant.

"The clinical implications of these results are most grave. The rational therapy of pneumococcic pneumonia demands knowledge of the sensitivity or resistance of the organism: chemotherapy in the absence of this knowledge is analogous to serotherapy in the absence of the knowledge of type. The golden opportunity to cure the patient may pass before the patient's clinical course can suggest that he is infected with a resistant strain. Present laboratory tests for fastness are research procedures requiring days rather than hours. There is hence an urgent clinical need for a rapid test for resistance.

"Virulent pneumococci, injected intraperitoneally into mice, cause an overwhelming pneumococcic peritonitis within a few hours. This is definitely altered by sulfonamide therapy, the peritoneal exudate showing few and atypical organisms. We have therefore injected the sputum of patients into treated and untreated mice, comparing their exudates at various intervals. Among the first 33 patients studied have been those representing each therapeutic category. This, and the encouraging results of the test, make it advisable to indicate our observations without awaiting the results of more elaborate studies in progress. . . .

"The total working time per test has averaged about thirty to forty minutes. The average time from inoculation to the appearance of overwhelming numbers of pneumococci in the exudate (i.e. to completion of the test) has been eighteen hours. All but three of the tests were completed between the second and the twenty-fourth hour, the other three requiring up to sixty-five hours (probably reflecting the fact that in these tests the mice received only 0.1 cc. of diluted sputum). On the average, it took more than three times as long (three and two-tenths) for the organisms to multiply profusely in treated mice as it did in the controls. . . .

"With regard to their response to chemotherapy, patients with pneumonia fall into several categories. Patients of group A, the present majority, are infected with a sensitive strain and respond beautifully to the drug. Those of group B, also infected with a sensitive strain, respond poorly or not at all, their lack of improvement being referable to the presence of a severe concomitant disease or to the presence of a complication of pneumonia. Those of group C are initially infected with a sensitive strain which develops fastness during chemotherapy, so that a preliminary improvement is succeeded by clinical resistance. Patients of group D are infected with a resistant strain from the first; their progress is the same as that of untreated pneumonia (except for the added hazard of injury by the drug), and effective therapy, such as serum or some chemotherapy to which the pneumococcus is sensitive, must be given as soon as possible."

Annual Session

Indiana State Medical Association

Indianapolis, Indiana

SEPTEMBER 23, 24, 25, 1941

Headquarters — Claypool Hotel

Complete Program on following pages

ALBERT M. MITCHELL, M.D.

TERRE HAUTE

President
Indiana State Medical Association
1941

INDIANA STATE MEDICAL ASSOCIATION

Officers — 1941

M. A. AUSTIN
President-Elect
Anderson

A. F. WEYERBACHER
Tresurer
Indianapolis

F. T. ROMBERGER
Chairman of Council
Lafayette

THOMAS A. HENDRICKS
Executive Secretary and
Managing Editor of
THE JOURNAL
Indianapolis

CLEON A. NAFE
Chairman
Executive Committee
Indianapolis

C. H. McCASKEY
Executive Committee
Indianapolis

CHARLES F. THOMPSON
Chairman
Convention Arrangements
Committee
Indianapolis

E. M. SHANKLIN
Editor THE JOURNAL
Hammond

Section Officers — 1941

J. H. CLEVENGER
Chairman
Section on Surgery
Muncie

JOHN WARVEL
Chairman
Section on Medicine
Indianapolis

WILLIAM F. HUGHES
Chairman
Section on Ophthalmology and Otolaryngology
Indianapolis

LILLIAN MUELLER
Chairman
Section on Anesthesia
Indianapolis

V. EARLE WISEMAN
Secretary
Section on Surgery
Greencastle

DONALD WOOD
Secretary
Section on Medicine
Indianapolis

E. O. ALVIS
Secretary
Section on Ophthalmology and Otolaryngology
Indianapolis

F. W. RATCLIFF
Secretary
Section on Anesthesia
Lafayette

INDIANAPOLIS—THE 1941 CONVENTION CITY

There have been many changes in the capital city since your last convention here in 1938. Indianapolis is a bustling, booming city, full to bursting with industries that are working at top speed on defense orders. Here is the home of the famous Allison motors that provide the power and speed for the famous Airacobra and other similar wings of war. The International Harvester Company has a large, new plant working at top speed for Uncle Sam. Trucks, small tanks, and airplane propellers are being produced as fast as possible, and hundreds of small manufacturing plants are humming merrily in efforts to do their part. Here is the enlarged Fort Benjamin Harrison with its new Billings Hospital of a thousand beds, new barracks, new streets teeming with soldiers. Here is the new National Guard airport—Stout Field—being enlarged and improved to the tune of a million dollars. But if this part of the city doesn't appeal to you, there are other attractions.

In a state with a population of 3,427,796 (1940), Indianapolis has a population of approximately 400,000. The city spreads over an area of fifty-five square miles, and is in the heart of the great Middlewest manufacturing region that produces thirty per cent of the nation's industrial output. More than 1,200 different commodities are manufactured in Indianapolis.

Indianapolis' central location is attested by the fact that forty-one national labor, fraternal, insurance and trade organizations maintain national headquarters in the city.

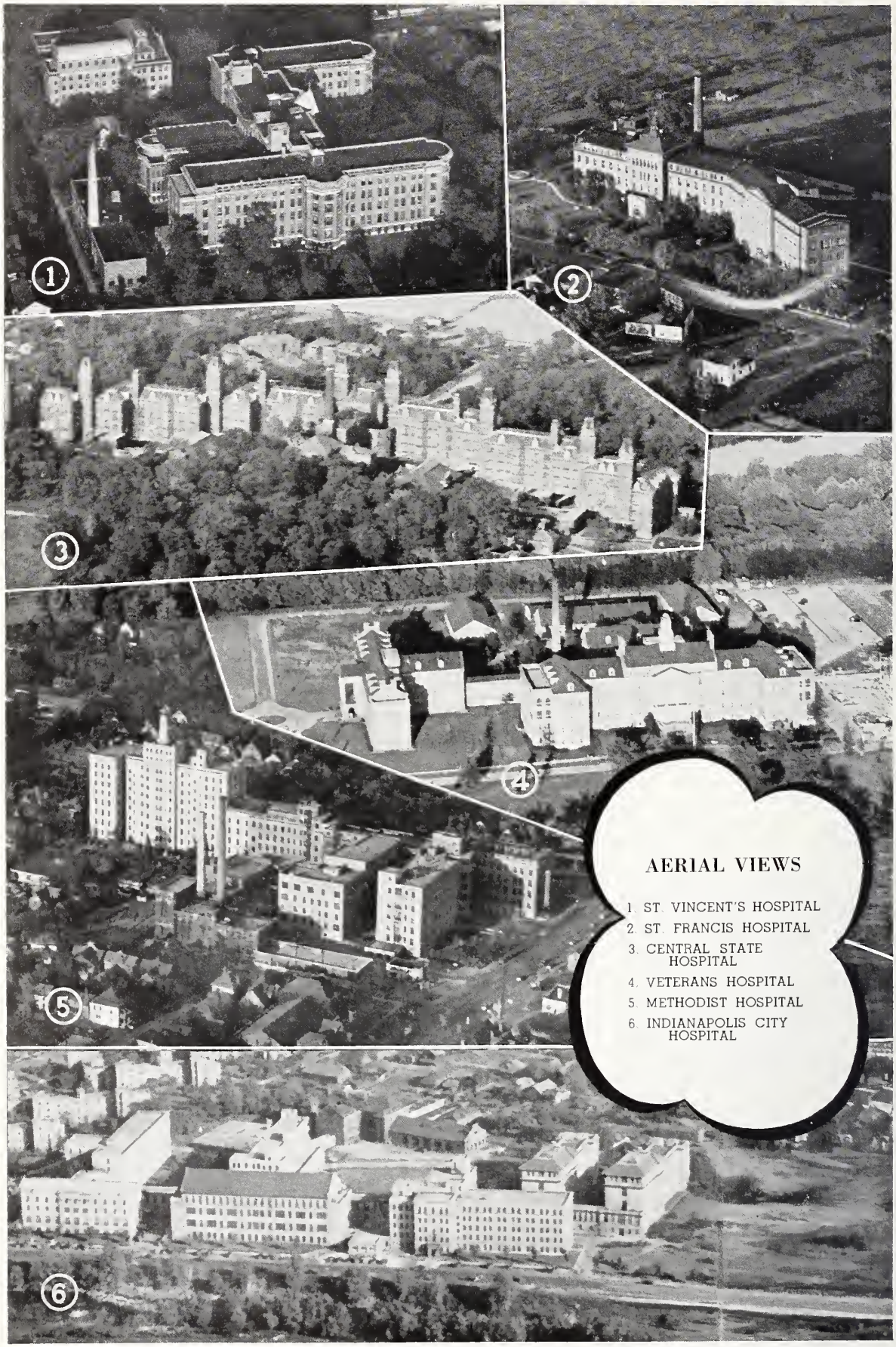
On the cultural side, Indianapolis stands high. It is the home of Butler University (enrolling more than 2,000 students), of the Arthur Jordan Conservatory of Music, and the John Herron Art School. The Indianapolis Symphony, under the direction of Fabien Sevitzky, has an international reputation. You may have visited the Circle Monument which is second only to the Washington Monument in height and is regarded as one of the finest and most elaborate pieces of monumental architecture in the world. To the north of the Circle is the Indiana World War Memorial Plaza, occupying five city blocks with a central shrine constructed of white Indiana limestone. A World War museum is located in the basement of this building. The Plaza was constructed at a total cost of fifteen million dollars. South of the Plaza is the Federal Court House and Post Office, and north of the Plaza is the James Whitcomb Riley Public Library, reputed to be the most nearly perfect example of pure Greek architecture in the United States.

Every Hoosier knows that Indianapolis was the home of James Whitcomb Riley, one of the first American "homely" poets. There are many memorials to Riley in and about the city, and his home on Lockerbie street is open to the public. His boyhood home at Greenfield, nineteen miles from Indianapolis, recently has been restored and is open to visitors. Another Indiana author, General Lew Wallace who wrote *Ben Hur*, had his study at Crawfordsville, fifty miles northwest of Indianapolis; it, too, is open to the public.

Predecessors of these writers were Robert Dale Owen and Edward Eggleston, the latter author of *The Hoosier Schoolmaster*. Later came William Vaughn Moody, Maurice Thompson, Charles Major, David Graham Phillips, Gene Stratton Porter, Albert J. Beveridge, Kin Hubbard, and Vice-President Thomas R. Marshall. Theodore Dreiser hails from Terre Haute. Meredith Nicholson and Booth Tarkington have homes in Indianapolis, and George Ade and Elmer Davis are Indiana men.

In your sight-seeing trips about the city, you will want to see the Plaza, mentioned above. Just west of the Plaza is the $3,500,000 Scottish Rite

Indianapolis—South Meridian looking toward Circle Monument



Cut courtesy of Indianapolis Medical Bulletin.

Garfield Park gardens and fountains

Cathedral, a masterpiece of old world architecture. In its tower is a rare carillon. The annual banquet will be held in this building.

Of historic interest is the recently restored home of Benjamin Harrison, twenty-third president of the United States. The home is open to visitors, and it adjoins the grounds of the Arthur Jordan Conservatory of Music. The former home of Charles Warren Fairbanks, a vice-president of the United States, is now the home of the Indianapolis Life Insurance Company and the original beauty of the estate has been preserved.

Perry Stadium, home of the Indianapolis American Association Indians Baseball Club, is one of the finest minor league parks in the United States and has the reputation of being the best equipped for night baseball. You may see the Stadium on your way to the Indianapolis Motor Speedway, the great outdoor laboratory which has paced the progress of the automotive industry. Much of the advancement and refinement of the motor car of today can be traced to experiments at high speed on this two and one-half mile track.

Indianapolis is the home of the internationally known pharmaceutical companies—Eli Lilly & Company and the Pitman-Moore Company. Many smaller pharmaceutical companies have their homes here, and many of the well known companies, such as Parke-Davis, Sharp & Dohme, and Abbott's, maintain offices and distributing quarters in Indianapolis.

Benjamin Harrison home

John Herron Art School

Arthur Jordan Hall—Butler University

New Coliseum—State Fair Grounds

Taggart Memorial—Riverside Park

New home of Indiana State Board of Health

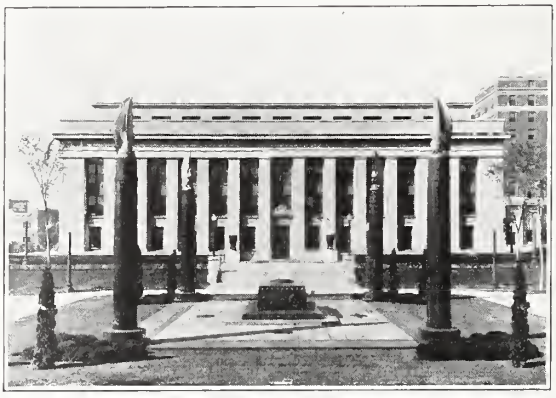
Almost every Hoosier doctor is familiar with the Indiana University Medical Center and will want to visit there during the convention period. Recently the beautiful new home of the Indiana State Board of Health has been added to the group which is composed of the Indiana University Medical School, the Indiana University Dental School, the Robert W. Long Hospital, the Ball Nurses Home, the Coleman Hospital for Women, the James Whitcomb Riley Hospital for Children, and the Rotary Convalescent unit.

Indianapolis has numerous theaters, restaurants and night clubs for your enjoyment.

The time of the convention this year—September 23, 24, and 25—will be perfect for an outing in one or more of the state parks on your way to and from the convention. Why not take an extra day or two on the trip and stop at one of these beautiful parks? They have ideal facilities for such a stop-over. Many millions of dollars have been spent in recent years in improving these parks and the highways which connect them. Study your map of Indiana, and decide to see a bit of your own Hoosier State.

Indianapolis can be reached from the most distant point in the state in five hours by paved road or railroad. The city has five commercial airports, including the Municipal Airport where TWA, American Airlines, and Eastern Airlines operate many schedules daily in all directions.

Indianapolis welcomes you!



American Legion Headquarters—The Plaza

Official Program

92ND ANNUAL SESSION
INDIANA STATE MEDICAL ASSOCIATION
CLAYPOOL HOTEL
INDIANAPOLIS, INDIANA

September 23, 24 and 25, 1941

(Schedule will be carried out on Central Daylight Saving Time)

Monday, September 22, 1941

Meeting of state health officers.

(See program page 519)

6:30 p.m. Executive Committee dinner and meeting, Claypool Hotel.

Tuesday, September 23, 1941

Morning

8:00 a.m. Registration starts, Riley Room, Claypool Hotel.

8:00 a.m. Opening of commercial exhibit, Riley Room, Claypool Hotel.

8:00 a.m. Opening of scientific exhibit, mezzanine floor, Claypool Hotel.

9:00 a.m.-5:00 p.m. Clinic Day. Clinics at the Indianapolis City Hospital and Indiana University Hospitals, under supervision of respective staffs.

9:00 a.m.-5:00 p.m. Heart Clinic, Parlor B, mezzanine floor, Claypool Hotel.

9:00 a.m. Annual golf tournament. Eighteen holes, low gross and handicap medal play, Highland Golf and Country Club. (Fees, $2.00, including greens fee and luncheon.)

11:00 a.m. Opening of physicians' hobby exhibit, under supervision of Woman's Auxiliary to the Indianapolis Medical Society, Florentine Room, mezzanine floor, Claypool Hotel.

Noon

11:45 a.m. Golfers' buffet luncheon, Highland Golf and Country Club.

12:00 m. Trap and skeet shooters' luncheon, Capitol City Gun Club.

12:00 m. Clinic visitors' luncheon, Cafeteria, Riley Hospital.

12:30 p.m. Council meeting, Empire Room, mezzanine floor, Claypool Hotel.

Afternoon

1:00 p.m. Annual trap and skeet shoot, Capitol City Gun Club.

4:00 p.m. Meeting of House of Delegates, Assembly Room, eighth floor, Claypool Hotel.

Evening

6:30 p.m. Annual dinner meeting for women physicians, Propylaeum. Musical program.

7:00 p.m. Buffet supper, smoker and stag party, Recreation Room, Murat Temple, 508 North New Jersey Street. (Doors open at 6:30 p.m.)

Wednesday, September 24, 1941

Morning

8:00 a.m. Breakfast meeting of Committee on Secretaries' Conference, Parlor S, mezzanine floor, Claypool Hotel.

8:00 a.m. Registration continues, Riley Room, Claypool Hotel.

8:00 a.m. Commercial exhibits, Riley Room, Claypool Hotel.

8:00 a.m. Scientific exhibits, mezzanine floor, Claypool Hotel.

9:00 a.m. Physicians' hobby exhibit, Florentine Room, mezzanine floor, Claypool Hotel.

9:00 a.m.-2:00 p.m. Heart Clinic, Parlor B, mezzanine floor, Claypool Hotel.

GENERAL MEETING

Assembly Room, Eighth Floor, Claypool Hotel

9:00 a.m. Call to order by A. M. Mitchell, M.D., Terre Haute, president, Indiana State Medical Association.

9:10 a.m. Introduction of J. O. Ritchey, M.D., president of the Indianapolis Medical Society, by Charles F. Thompson, M.D., chairman of the Committee on Convention Arrangements.

Greetings—J. O. Ritchey, M.D.

9:15 a.m. President's address, A. M. MITCHELL, M.D., Terre Haute.

SCIENTIFIC PROGRAM

9:30 a.m. LOUIS HOPEWELL BAUER, M.D., Editor of The Journal of Aviation Medicine, Hempstead, N. Y.
Subject: *Aviation Medicine.*

10:00 a.m. J. PEERMAN NESSELROD, M.D., Evanston, Illinois.
Subject: *Rectal and Lower Sigmoid Diseases.* (Colored motion pictures.)

10:30 a.m. RICHARD BARTLEY CATTELL, M.D., Boston.
Subject: *Surgical Diseases of the Large Intestine.*

11:00 a.m. JAMES P. LEAKE, M.D., Medical Director, Federal Security Agency, United States Public Health Service, National Institute of Health, Bethesda, Maryland.
Subject: *Poliomyelitis.*

L. H. Bauer

J. P. Nesselrod

Richard B. Cattell

(Wednesday Morning—Sept. 24, 1941)

11:30 a.m. RALPH PEMBERTON, M.D., Professor of Medicine, The Medico-Chirurgical College, Graduate School of Medicine, Unisity of Pennsylvania. Philadelphia.
Subject: *Arthritis.*

Noon

12:15 p.m. Fraternity, class and ex-service men's luncheons and get-togethers.
I.U. Class of 1924, Parlor T, mezzanine floor, Claypool Hotel.
Luncheon meeting of members of the state and county Anti-Tuberculosis Committees, Louis XIV room, mezzanine floor, Claypool Hotel. Round table discussion. Nationally known speaker.
Luncheon meeting of Indiana Association of Pathologists, English Room, mezzanine floor, Claypool Hotel.

12:30 p.m. Luncheon of Section on Anesthesia, Empire Room, mezzanine floor, Claypool Hotel.
Speaker: PAUL M. WOOD, M.D., New York.

Afternoon

SECTION MEETINGS

MEDICAL SECTION

Chairman, John Warvel, M.D., Indianapolis
Vice-chairman, James E. McMeel, M.D., South Bend
Secretary, Don E. Wood, M.D., Indianapolis
(Assembly Room, Eighth Floor, Claypool Hotel)

2:00 p.m. RUSSELL L. HADEN, M.D., Cleveland, O.
Subject: *The More Common Blood Dyscrasias Seen by the General Practitioner.*
(Presentation of cases.)

3:00 p.m. Panel discussion:*
The Clinical Application of the Newer Laboratory Procedures as Pertains to the Man in General Practice.
J. O. RITCHEY, M.D., chairman of panel, Indianapolis
ALFRED S. GIORDANO, M.D., South Bend
ETTA SELSAM, M.D., Terre Haute
WEMPLE DODDS, M.D., Crawfordsville
GORDON B. WILDER, M.D., Anderson

3:50 p.m. Election of section officers.

4:00 p.m. Symposium on "Diabetes": (10 minutes allowed for each presentation.)
1. M. R. SHAFER, M.D., Indianapolis.
The Management of the Juvenile Diabetic.

* As a special feature of this year's program, arrangements are being made for you to be able to ask any questions you wish on the subject of modern laboratory procedures. Use the following form to mail in your questions, or bring them to the meeting.

Cut on dotted line and mail to Don E. Wood, M.D., 6325 Bellefontaine St., Indianapolis, Ind.

MODERN LABORATORY PROCEDURES QUIZ

Check the subjects you would like to have discussed:

___Urea Clearance	___Proteus X 19
___Blood Cholesterol	___Typing for Influenza
___Blood Prothrombin	___Blood Transfusion
___Blood Diastase	___(a) Whole Blood
___Blood Phosphatase	___(b) Blood Plasma

MY QUESTION IS:_____

_____

_____

_____M. D.

Ralph Pemberton

J. P. Leake

Russel Haden

W. K. Jennings

Sanford Gifford

Paul Wood

2. ROSCOE H. BEESON, M.D., Muncie.
The Management of the Adult Diabetic.
3. B. M. EDLAVITCH, M.D., Fort Wayne.
The Management of the Senile Diabetic.

4:30 p.m. CLIFFORD O. RICHEY, M.D., Evansville.
Subject: *Gaseous Indigestion.*

Wednesday, September 24, 1941

Afternoon

SURGICAL SECTION

Chairman, Joseph H. Clevenger, M.D., Muncie
Vice-chairman, A. H. Duemling, M.D., Fort Wayne
Secretary, V. Earle Wiseman, M.D., Greencastle

(Chateau Room, First Floor, Claypool Hotel)

2:00 p.m. HAWTHORNE C. WALLACE, M.D., Crawfordsville.
Subject: *Regional Ileitis.*

2:20 p.m. Discussion by Harold C. Thornton, M.D., Indianapolis.

2:30 p.m. ROBERT B. ACKER, M.D., South Bend.
Subject: *After Treatment of Poliomyelitis.*

2:50 p.m. Discussion by J. Neill Garber, M.D., Indianapolis.

3:00 p.m. WILLIAM DEPREZ INLOW, M.D., Shelbyville.
Subject: *Polycystic Disease of the Liver.*

3:20 p.m. Discussion by Clyde G. Culbertson, M.D., Indianapolis.

3:30 p.m. ERNEST RUPEL, M.D., Indianapolis.
Subject: *Surgical Lesions of the Kidney.*

3:50 p.m. Discussion by Theodore R. Hayes, M.D., Muncie.

4:00 p.m. W. KENNETH JENNINGS, M.D., Associate Professor of Surgery, Northwestern University Medical School, Chicago, Illinois.
Subject: *A New Method of Repair for Inguinal Hernia.*

4:30 p.m. Election of section officers.

Afternoon

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman, W. F. Hughes, M.D., Indianapolis
Vice-chairman, R. M. Dearmin, M.D., Indianapolis
Secretary, E. O. Alvis, M.D., Indianapolis

(Palm Room, Ninth Floor, Claypool Hotel)

2:00 p.m. JOHN R. SWAN, M.D., Indianapolis.
Subject: *Complications of Mastoiditis.*

2:30 p.m. Discussion.

2:45 p.m. FRED McKEMY RUBY, M.D., Union City.
Subject: *The Practice of Ophthalmology.*

3:15 p.m. Discussion.

3:30 p.m. EUGENE L. BULSON, M.D., Fort Wayne.
Subject: *Cancer of the Larynx.*

4:00 p.m. Discussion.

4:15 p.m. SANFORD R. GIFFORD, M.D., Professor of Ophthalmology, Northwestern University Medical School, Chicago.
Subject: *Relation Between the Eye and the Upper Respiratory Tissues.*

5:00 p.m. Election of section officers.

Afternoon

SECTION ON ANESTHESIA

Chairman, Lillian Mueller, M.D., Indianapolis
Vice-chairman, E. P. Buckley, M.D., Jeffersonville
Secretary, F. W. Ratcliff, M.D., Lafayette

12:30 p.m. Luncheon in honor of Paul M. Wood, M.D., Assistant Clinical Professor of Anesthesia, New York Medical College, New York, Empire Room, Claypool Hotel.

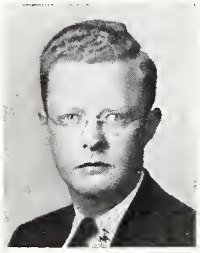
(Parlor B, Mezzanine Floor, Claypool Hotel)

2:00 p.m. LILLIAN B. MUELLER, M.D., Indianapolis.
Subject: *A Simple Device for Administering Intravenous Barbiturates.*

2:10 p.m. PAUL M. WOOD, M.D., New York.
Subject: *Facts and Fallacies Concerning Modern Anesthesia.*

2:30 p.m. Discussion by E. P. Buckley, M.D., Jeffersonville.

F. W. Rankin



William D. Province

Charles Mazer

2:40 p.m. MERRILL E. LISTON, M.D., South Bend. Subject: *Preliminary Medication.*

3:00 p.m. Discussion by F. W. Rateliff, M.D., Lafayette.

3:10 p.m. J. M. WHITEHEAD, M.D., Indianapolis. Subject: *Anesthetic Agents and Anesthetic Failures.*

3:30 p.m. Discussion by Paul M. Wood, M. D., New York.

3:40 p.m. Round table discussion.

4:00 p.m. Election of section officers.

ANNUAL BANQUET

Wednesday, September 24, 1941

7:00 p.m. Annual Banquet, Scottish Rite Cathedral. Presiding officer, A. M. Mitchell, M.D., president, Indiana State Medical Association.

Presentation of certificate of merit to Karl R. Ruddell, M.D., president, 1940, Indiana State Medical Association by A. M. Mitchell, M.D.

Speaker: FRED W. RANKIN, M.D., Lexington, Kentucky, president-elect, American Medical Association.

Subject: *The Medical Profession and the Emergency.*

Tribute to Indiana physicians in service by Larue Carter, M.D., chairman, Convention Military Service Committee.

Speaker: MICHAEL "MICKEY" MacDOUGALL, famous card detective and author of "Gamblers Don't Gamble."

Thursday, September 25, 1941

7:00 a.m. House of Delegates breakfast meeting, Chateau Room, first floor, Claypool Hotel (unless otherwise designated by the House). Annual election of officers and selection of convention city for 1942.

Meeting of Council immediately following adjournment of House of Delegates.

9:00 a.m. Heart Clinic, Parlor B, mezzanine floor, Claypool Hotel.

GENERAL MEETING

Assembly Room, Eighth Floor, Claypool Hotel

9:00 a.m. WILLIAM DITMARS PROVINCE, M.D., Resident in Medicine, Presbyterian Hospital, New York. Subject: *Chemotherapy.*

9:30 a.m. CHARLES MAZER, M.D., Assistant Professor of Gynecology, The Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Subject: *Endocrine Treatment in General Practice.*

10:00 a.m. C. D. SELBY, M.D., Detroit. Subject: *Industrial Health.*

10:30 a.m. JOHN J. MOORHEAD, M.D., Professor of Clinical Surgery, New York Post-Graduate Medical School, Columbia University, New York. Subject: *The Essentials in Fracture Treatment.* (Lantern slides.)

11:00 a.m. FRED M. SMITH, M.D., Professor of Theory and Practice, State University of Iowa College of Medicine, Iowa City, Iowa. Subject: *The Management of the Patient with Coronary Disease.*

C. D. Selby

J. J. Moorhead

Fred M. Smith

Scientific Exhibit

MEZZANINE FLOOR, CLAYPOOL HOTEL

C. G. Culbertson, M.D., Indianapolis, Chairman
Clifford Taylor, M.D., Indianapolis
H. C. Thornton, M.D., Indianapolis
H. M. Banks, M.D., Indianapolis
Kenneth Kohlstaedt, M.D., Indianapolis
A. C. Bach, M.D., Indianapolis

1. SCOTT AND WHITE CLINIC
   Dr. G. V. Brindley, Temple, Texas
2. INDIANA ASSOCIATION OF THE HISTORY OF MEDICINE
   Mrs. Anthony J. Russo, Indianapolis
3. INDIANA STATE ASSOCIATION OF PATHOLOGISTS
   Dr. L. G. Montgomery, Muncie
4. CHRONIC RHEUMATIC BRAIN DISEASE—SEQUEL OF RHEUMATIC FEVER
   Drs. Walter L. Bruetsch and Max A. Bahr, Central State Hospital, Indianapolis
5. THE KIDNEY IN GLOMERULONEPHRITIS
   Dr. Frank Forry, Indianapolis
6. VARIATION OF DRUG ACTION
   Drs. K. K. Chen and G. H. A. Clowes, Indianapolis
7. HEART CLINIC
   Drs. C. J. Clark, Kenneth Kohlstadt, and Irvine Page, Indianapolis City Hospital
8. MASSIVE ARSENOTHERAPY OF SYPHILIS
   Drs. George Bowman and Francis G. Sheehan, Indiana State Board of Health and Indianapolis City Hospital
9. CHEMISTRY OF THE SULFONAMIDE DRUGS
   American Medical Association
10. STUDIES ON INTESTINAL OBSTRUCTION
    Drs. W. D. Gatch and J. S. Battersby, Indianapolis
11. INDIANA PHARMACEUTICAL ASSOCIATION
    Professional Relations Committee
12. TUMOR CLINIC
    Dr. J. William Hofmann, Indianapolis City Hospital
13. GASTROENTEROLOGY CLINIC
    Dr. R. H. Moser, Indianapolis City Hospital

The committee feels that this exhibit will be an unusually fine one this year. Many of the exhibits were shown at the annual session of the American Medical Association and received certificates of merit, the Scott-White exhibit having received the gold medal for display in its particular classification.

WOMEN'S ENTERTAINMENT

Tuesday, September 23, 1941

9:00 a.m. Registration, Riley Room, Claypool Hotel.
10:30 a.m. Executive Board meeting, Empire Room, mezzanine floor, Claypool Hotel.
11:00 a.m.-5:00 p.m. Physicians' hobby exhibit, Florentine Room, mezzanine floor, Claypool Hotel.
2:30 p.m. Tour of Riley Hospital.
Reception and tea for state officers, Riley Hospital.
6:30 p.m. Dinner and style show, Columbia Club. (Tickets on sale.)

Wednesday, September 24, 1941

8:30 a.m. Annual Auxiliary breakfast and business meeting, Tea Room, L. S. Ayres and Company. (Tickets on sale.)

ORDER OF BUSINESS

9:00 (1 min.) *Call to order*—Mrs. C. L. Bock, Indianapolis, president, Woman's Auxiliary to the Indiana State Medical Association.
9:01 (3 min.) *Pledge of allegiance*—Assembly.
9:04 (3 min.) *Address of welcome*—Mrs. Karl Koons, Indianapolis, president, Woman's Auxiliary to the Indianapolis Medical Society.
9:07 (2 min.) *Response*—Mrs. William E. Tinney, Indianapolis.
9:09 (10 min.) *In Memoriam*—Mrs. E. N. Mendenhall, Fort Wayne
9:19 (5 min.) *Song*—Mrs. John W. Emhardt, Indiandianapolis.
Accompanist—Mrs. George Dillinger, French Lick.
9:24 (10 min.) *Roll call*—Mrs. Frederick E. Gifford, Indianapolis, Credentials Committee Chairman.
9:34 (2 min.) *Presenting agenda for approval*—Mrs. E. N. Mendenhall, Program Chairman.
9:36 (3 min.) *President's Message*—Mrs. C. L. Bock, president.
9:39 (10 min.) *Reports of elected officers:*
Recording Secretary—Mrs. Charles Schneider, Evansville.
Treasurer—Mrs. Marion W. Hillman, South Bend.
Auditor—Mrs. E. O. Nay, Terre Haute.
Corresponding Secretary—Mrs. T. R. Owens, Muncie.
Parliamentarian—Mrs. C. F. Voyles, Indianapolis.
9:49 (30 min.) *Address*—"League of Women Voters' Study of Public Health and Health Insurance"—Mrs. Lester A. Smith, Indianapolis, president, Indianapolis League of Women Voters.

10:19 (10 min.) *History and Archives*—Mrs. U. G. Poland, Muncie.
Mrs. E. M. Shanklin, Hammond.

10:29 (15 min.) *Introduction of County Presidents*—Mrs. Fred B. Wishard, Pendleton.

10:44 (12 min.) *Report of National Convention*—Mrs. George Dillinger, French Lick, delegate.

10:56 (10 min.) *Unfinished business.*

11:06 (15 min.) *New Business*—
Present resolutions — Mrs. C. F. Voyles, chairman.
Budget Committee report—Mrs. C. V. Rozelle, Anderson, chairman.

11:21 (3 min.) *Report of Nominating Committee*—Mrs. S. R. Combs, Terre Haute.

11:24 (5 min.) *Election of officers.*

11:29 (12 min.) *Installation of officers*—Mrs. C. F. Voyles.

11:41 (10 min.) *President's response*—Mrs. E. O. Nay, president 1942.
New business.
Adjournment.
Post-convention Board meeting immediately following adjournment.

9:00 a.m.- 5:00 p.m. Physicians' hobby exhibit, Florentine Room, mezzanine floor, Claypool Hotel.

2.30 p.m. Tour for guests. Private cars will leave south entrance of Claypool Hotel at 2:30.

7:00 p.m. ANNUAL BANQUET, SCOTTISH RITE CATHEDRAL. (See page 478.)

Thursday, September 25, 1941

10:00 a.m.- 12:00 noon Physicians' hobby exhibit, Florentine Room, mezzanine floor, Claypool Hotel.

Announcements

THE HOBBY SHOW

The Marion County Medical Society, with the cooperation of The Woman's Auxiliary, is sponsoring a Hobby Show to be held in the Florentine Room of the Claypool Hotel during the Annual Convention of The Indiana State Medical Association. Members of The Indiana State Medical Association and their families throughout the state are invited and urged to display hobbies at the show. A return card for reservation of space will be included in the convention packet.

Let us all see what you enjoy doing in your spare moments. Exhibition of a wide variety of hobbies will add greatly to the interest and success of the show. Your support and cooperation are needed to make this popular exhibit a real success.

DR. PAUL WOOD GUEST AT ANESTHETISTS' LUNCHEON

Dr. Paul M. Wood of New York City, secretary of the American Society of Anesthetists and secretary of the American Board of Anesthesiology, will be the guest of honor Wednesday, September twenty-fourth, at a luncheon at 12:30 o'clock in Parlor B of the Claypool Hotel.

The luncheon will be open to all physicians interested in anesthesia, and will be of particular interest to all anesthetists, as Dr. Wood has done much to further the cause of scientific anesthesia. He was instrumental in bringing about the creation of the recently formed Board of Anesthesiology and he is business editor of *Anesthesiology*, the journal of the American Society of Anesthetists, Inc.

Dr. Wood will be the guest speaker Wednesday afternoon, September twenty-fourth, at the meeting of the Section on Anesthesia.

ATTENTION—I.U. CLASS OF 1924

To Members of the Class of 1924, Indiana University School of Medicine: SEND A CARD WITH YOUR PRESENT ADDRESS AND STATE WHETHER YOU WILL BE PRESENT AT THE LUNCHEON MEETING IN PARLOR T, CLAYPOOL HOTEL, at 12:15 p.m., WEDNESDAY, SEPTEMBER TWENTY-FOURTH. ADDRESS CARDS TO ROBERT M. DEARMIN, M.D., 915 Hume Mansur Building, INDIANAPOLIS, INDIANA.

I.U. CLASS OF 1907 will meet at breakfast, Septem- 24, at 8:00 a.m., Claypool Hotel. Make reservations at registration desk. COME—TALK—EAT—PLAN.

TRAP AND SKEET SHOOT

Indianapolis is fortunate in having two or three excellent shooting clubs, and we are selecting the most convenient one for the site of the annual Trap and Skeet Shoot. An attempt to provide a greater number of prizes for this event is being made. The interest shown in this event should urge every doctor attending the convention to bring his favorite gun to Indianapolis. (See page 520.)

TRAP AND SKEET SHOOT COMMITTEE
L. A. Ensminger, M.D., Chairman

OFFICIAL CALL TO THE HOUSE OF DELEGATES

The next annual session of the Indiana State Medical Association will be held at Indianapolis, September 23, 24 and 25, 1941.

The House of Delegates will be constituted as follows: Marion county, thirteen delegates; Lake county, five delegates; Allen county, three delegates; St. Joseph county, three delegates; Vanderburgh county, three delegates; Daviess-Martin, Dearborn-Ohio, Delaware-Blackford, Fayette-Franklin, Fountain-Warren, Jasper-Newton, Parke-Vermillion, Tippecanoe, Vigo and Wayne-Union county societies, each two delegates; the other sixty-eight county societies, each one delegate; thirteen councilors; the ex-presidents, namely: C. S. Bond, Joseph R. Eastman, W. H. Stemm, W. R. Davidson, E. M. Shanklin, Charles N. Combs, Frank W. Cregor, George R. Daniels, Charles E. Gillespie, Angus C. McDonald, A. B. Graham, F. S. Crockett, J. H. Weinstein, E. E. Padgett, R. L. Sensenich, Herman M. Baker, E. M. Van Buskirk, and Karl R. Ruddell. In addition to these, the president, secretary, and treasurer, all without power to vote except in case of a tie, when the president shall cast the deciding vote.

Blank credentials have been sent by the secretary to each county society, and the properly executed credentials should be mailed to Thomas A. Hendricks, 1021 Hume Mansur Building, Indianapolis, or brought to the session. No delegates will be seated unless wearing the official badge.

The House of Delegates will convene promptly at 4:00 p. m., Tuesday, September 23, in the Assembly Room, eighth floor, of the Claypool Hotel, and again at 7:00 a. m., Thursday morning, September 25, (unless otherwise designated by the House), in the Chateau Room, first floor, of the Claypool Hotel (breakfast meeting).

The order of business will be as follows:

1. Call to order by the president.
2. Roll call and seating of qualified delegates.
3. Reading of the minutes of previous meetings.
4. Appointment of reference committees.
5. Report of executive secretary.
6. Report of the treasurer.
7. Report of the chairman of the council.
8. Reports of standing and special committees:

(1) CREDENTIALS.
(2) EXECUTIVE.
(3) ARRANGEMENTS.
(4) SCIENTIFIC WORK.
(5) PUBLIC POLICY AND LEGISLATION.
(6) BUREAU OF PUBLICITY.
(7) CIVIC AND INDUSTRIAL RELATIONS.
(8) MEDICAL EDUCATION AND HOSPITALS.
(9) JOURNAL PUBLICATION.
(10) SECRETARIES' CONFERENCE.
(11) SCIENTIFIC EXHIBIT.
(12) PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE.
(13) NECROLOGY AND HISTORY.
(14) STUDY OF HIGH SCHOOL ATHLETICS.
(15) MENTAL HEALTH.
(16) STATE FAIR.
(17) PREVENTION OF TRAFFIC ACCIDENTS.
(18) ADVISORY COMMITTEE TO THE BUREAU OF MATERNAL AND CHILD HEALTH OF THE INDIANA STATE BOARD OF HEALTH.
(19) DIRECTOR OF RESEARCH ON SICKNESS INSURANCE.
(20) SUB-COMMITTEE TO STUDY MATERNAL MORBIDITY AND MORTALITY RATES FOR INDIANA.
(21) LIAISON COMMITTEE OF THE DIVISION OF SERVICES FOR CRIPPLED CHILDREN.
(22) AUDITING.
(23) CONTROL OF CANCER.
(24) VENEREAL DISEASE.
(25) INDUSTRIAL HEALTH.
(26) STUDY OF CULTISTS AND IRREGULAR PRACTITIONERS.
(27) INDIANA INTER-PROFESSIONAL HEALTH COUNCIL.
(28) ANTI-TUBERCULOSIS.
(29) CONSERVATION OF VISION.
(30) M-DAY AND VETERANS' AFFAIRS.
(31) PHYSICAL THERAPY.
(32) PNEUMONIA.
(33) MEDICAL RELIEF.
(34) STUDY ON AID TO NEEDY PHYSICIANS.

9. Reading of communications.
10. Reading of memorials and resolutions.
11. Unfinished business.
12. New business.
13. Adjournment.

The election of officers will be the first order of business at the second meeting of the House of Delegates. In addition to the regular officers, the terms of the following officers expire December 31, 1941, and their successors must be elected at the session: Delegates to the American Medical Association to succeed Don F. Cameron, Fort Wayne, and F. S. Crockett, Lafayette, and alternates, Norman M. Beatty, Indianapolis, and A. M. Mitchell, Terre Haute.

Delegates from the first, fourth, seventh, tenth, and thirteenth districts are reminded that the terms of their councilors will expire December 31, 1941, and the new councilors should be elected to succeed the following:

First District:	I. C. Barclay, Evansville.
Fourth District:	J. C. Elliott, Guilford.
Seventh District:	C. J. Clark, Indianapolis.
Tenth District:	James M. White, Gary.
Thirteenth District:	Alfred Ellison, South Bend.

Some of these elections already may have been held but they should be reported to the House of Delegates at this session for confirmation.

Thomas A. Hendricks,
Executive Secretary.

Reports of Officers and Committees

COMMITTEE ON CREDENTIALS

House of Delegates,
Indiana State Medical Association

Gentlemen:

In accordance with the Constitution and By-Laws of the Indiana State Medical Association, each county medical society must certify its delegates and alternates previous to the annual sesson of the state association. A postal card notification signed by the secretary of the local county medical society and sent to the headquarters office is sufficient certification. If you have not yet taken this action in your society, we urge that this be done immediately and that the headquarters office of this committee be notified.

W. F. CARVER, M.D., *Chairman*
J. W. BOWERS, M.D.
W. E. AMY, M.D.

EXECUTIVE SECRETARY

House of Delegates,
Indiana State Medical Association

Gentlemen:

In making our short, informal annual statement we have tried to write a few lines each year calling the attention of the members of the state association and the House of Delegates to the importance of the problems and questions facing the profession and the methods used by the association to find, if possible, the right answers. Each year these problems are growing more numerous and solutions are becoming steadily more difficult to attain. All this has given rise in certain sections of the country to a "defeatism" and a tendency to exclaim, "You can't stop the wave of the future, so what's the use!"

In Indiana, however, organized medicine has refused to take this attitude of defeat and the officers and members of the key committees of the state association constantly have maintained that, irrespective of the size and power of the wave, by proper skippering the medical profession of Indiana will not founder but will ride the crest.

These following pages containing the reports from your officers and thirty-seven standing and special committees reflect a confidence that refuses to admit defeat. These reports show that the Indiana State Medical Association is an active, aggressive, battling organization, made up of men who, although they are busy practicing physicians, are ardent crusaders against disease and are prepared to maintain a high standard of service to the public both in peace and in war.

All feel that critical times are ahead but the medical profession has faced crises before. In fact, the following excerpts from each of the reports of your secretary for the last ten years show that this period has been filled with one crisis after another, and probably a retrospective look at the record since the start of the association in 1849 would find no year which was devoid of its pressing problems and difficult questions.

1931

"With the stress of conditions, the individual physician and the medical profession have been faced with new problems. We estimate an average of 222 letters a week have been sent from headquarters office, making a total of 11,544 pieces of mail during the year. In addition, 330 releases are mailed each week by the Bureau of Publicity."

1932

"This annual session officially completes a year that has been marked by greater effort against greater odds than many ever have known before.

"No alteration in the basic principles and purposes of medical organization has taken place since the beginning of the state association 83 years ago. The profession has weathered many storms as bad as our present one and these doctrines stand as guides for the present-day activities of organized medicine."

1933

"A medical society exists primarily for scientific purposes but with the change in social and economic conditions, the profession has found that if it is to maintain its high scientific standards and remain true to its inherited traditions, it must interest itself with many matters that are essentially social and economic and not scientific in nature. . . . The profession has been kept aware of the new movements and new ideas that are coming at breathtaking speed and for which the medical profession must have satisfactory solutions."

1934

"The physicians of the state are looking as never before toward you members of the House of Delegates who are their chosen representatives for leadership and are hoping in some way that you who make up this body may find a solution for many of their professional and economic troubles and cares."

1935

"Undoubtedly the year 1935 will be long remembered as one of the most critical in American medical history. The annual reports throw light as nothing else perhaps does upon the complicated, fast-moving, ever-changing, social and economic picture as it pertains to medical practice in this state and give some hint of the problems faced by the profession and the never-ceasing attempts being made to find solutions for these problems.

"After reading reports of your committees and visualizing the situation as a whole, the physicians

of Indiana should be able to face the future with the knowledge that the Indiana State Medical Association is not a static body composed of officials with high-sounding titles and paper committees, but it is an alert, active, aggressive organization which is in the battle to the last for the public welfare and the maintenance of a profession in this state that can render effective service to the public."

1936

"We realize that comparative figures are mere indications rather than actual proof of the increased value of an organization, but we are confident that the medical profession of Indiana has fought through the depression and emerges into what we all hope are brighter times, better equipped and better prepared than ever before to serve the public."

1937

"Just about everything has happened during the past year that can happen to a profession in peace time. Social legislation, both national and local, placing greater duties and responsibilities on the medical profession, was enacted. . . . Stories of the immediate coming of socialized medicine rose to a new high, subsided and then burst forth on front pages over all the land, only to flatten out again in summer doldrums. Despite all it has gone through the past year, the profession may look forward with confidence in the fact that it is equipped materially and scientifically to serve the public of Indiana more effectively than ever."

1938

"The profession today is squarely and frankly confronted with a supremely great issue—socialized medicine—and doing something about it. . . . The 'Indiana Plan of Preventive Medicine' goes into effect."

1939

"Each year during the last decade has been designated in its turn as critical, crucial, and all-important to the medical profession. If an inlander may use a term of the high seas, American medicine may be said to be in mid-passage."

1940

"The future of the whole world is teetering in the balance. . . . The picture looks pretty grim. However we in the past so often have come around to the annual session with the sincere feeling that the association and its members are facing a crisis which may rock the whole profession to its foundations that we hesitate to call attention to the possibilities of the next twelve months."

* * * *

So, in the light of past events, whatever the future may bring, even though it be barracks, bayonets and bombs, the medical profession of Indiana stands ever ready and prepared.

THOMAS A. HENDRICKS,
Executive Secretary.

TREASURER

House of Delegates,
Indiana State Medical Association
Gentlemen:

The accompanying report prepared by the George S. Olive and Company, certified public accountants, of Indianapolis, is complete and, I believe, self-explanatory.

Since the first of the year we have reinvested $6,000. This amount came to us through the maturity of certain municipal bonds. The amount derived from these bonds was promptly invested in government securities, and, as will be noted in the report of the Auditing Committee, they were divided between the general fund and the medical defense fund.

A. F. WEYERBACHER, M.D.,
Treasurer

EXHIBIT A

Indiana State Medical Association

ANALYSIS OF INCREASE IN ASSETS, ALL FUNDS
YEAR ENDED DECEMBER 31, 1940

Total Assets, December 31, 1940—Exhibit B			**$57,883.21**
Total Assets, December 31, 1939			**51,349.24**
Net Increase			**6,533.97**
Arising from the following sources:			
Excess of operating cash receipts over operating cash disbursements — general fund, year ending December 31, 1940			
Receipts—Exhibit C	$37,867.75		
Disbursements—Exhibit C	29,541.30		
Excess of operating receipts		$ 8,326.45	
Excess of cash receipts over cash disbursements—medical defense fund, year endea December 31, 1940		1,271.20	
Excess of cash receipts over cash disbursements—The Journal of the Indiana State Medical Association, year ended December 31, 1940		6.32	
		9,603.97	
Less:			
Reduction of investment:			
Fort Wayne, Indiana, School Improvement bonds—matured	3,000.00		
Beachton Court Apartments bonds	60.00		
Rokeby Apartment Hotel bonds	10.00		
		3,070.00	
Total net increase			$ 6,533.97

EXHIBIT B

STATEMENT OF ASSETS, ALL FUNDS, AT DECEMBER 31, 1940

General Fund:		
Cash on deposit—Exhibit C	$14,161.43	
Petty cash fund	200.00	
Investments:		
Indianapolis, Indiana, City Hospital bonds	5,000.00	
Marion County, Indiana, Flood Prevention bonds	3,000.00	
United States Treasury bonds	10,000.00	
Beachton Court Apartments, Chicago, bonds evidenced by certificate of deposit	3,620.00	
Rokeby Apartment Hotel, Chicago, bond evidenced by certificate of deposit	945.00	
Total general fund assets		$36,926.43
The Journal of the Indiana State Medical Association:		
Cash on deposit—Exhibit D		3,303.64
Medical Defense Fund:		
Cash on deposit—Exhibit E	7,653.14	
Investments:		
Marion County, Indiana, Flood Prevention bonds	2,000.00	

United States Treasury bonds	8,000.00	
Total medical defense fund assets		17,653.14
Total Assets—All Funds—Exhibit A		**$57,883.21**

EXHIBIT C

COMPARATIVE STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEARS ENDED DECEMBER 31, 1940, AND DECEMBER 31, 1939

GENERAL FUND

	Year Ended Dec. 31, 1940	*Dec. 31, 1939*	*Increase —Decrease*
CASH BALANCE AT BEGINNING OF YEAR	$ 5,834.98	$ 4,191.90	$ 1,643.08
Receipts:			
Membership dues	31,184.00	21,471.00	9,713.00
Income from exhibits	2,865.00	4,022.12	—1,157.12
Rokeby Liquidation Trust Distribution	10.00		10.00
Beachton Court Liquidation Trust Distribution	60.00	120.00	—60.00
Fort Wayne, Indiana, School Improvement bonds—matured	3,000.00		3,000.00
Interest income			
United States Treasury bonds	286.25	286.25	
Indianapolis, Indiana, City Hospital bonds	200.00	200.00	
Marion County, Indiana, Flood Prevention bonds	127.50	127.50	
Fort Wayne, Indiana, School Improvement bonds	135.00	135.00	
Total receipts	37,867.75	26,361.87	11,505.88
BEGINNING BALANCE PLUS CASH RECEIPTS	43,702.73	30,553.77	13,148.96
Disbursements:			
Transfers of applicable portion of dues to The Journal of the Indiana State Medical Association—Exhibit D	6,376.00	6,246.00	130.00
Medical Defense fund—Exhibit E	2,328.00	2,283.75	44.25
Headquarters office expense	10,427.15	10,024.53	402.62
Publicity committee	476.44	729.55	—253.11
Public policy	510.55	906.92	—396.37
Council	3,260.08	208.04	3,052.04
Officers	655.81	530.98	124.83
Rent	500.00		500.00
Annual session	2,976.31	2,846.57	129.74
Miscellaneous committees	1,779.38	692.16	1,087.22
Postgraduate study	192.70	191.90	.80
Federal O.A.B. tax	58.88	58.39	.49
Total disbursements	29,541.30	24,718.79	4,822.51
Cash balance at end of year	**$14,161.43** *(Exhibit B)*	**$ 5,834.98**	**$ 8,326.45**

EXHIBIT D

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS, YEAR ENDED DECEMBER 31, 1940

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

BALANCE, JANUARY 1, 1940		$ 3,297.32
Receipts:		
Subscriptions—members—Exhibit C	$ 6,376.00	
Subscriptions—non-members	95.00	
Advertising	10,721.71	
Collections on accounts receivable	288.60	
Single copy sales	19.50	
Electrotypes	56.27	
Sale of old metal	11.50	
Total receipts		17,568.58
		20,865.90
Disbursements:		
Editorial and management salaries	8,034.29	
Printing	7,129.44	
Postage	667.78	
Electrotypes	537.61	
Office rent and light	241.37	
Office supplies	332.98	
Press clippings	110.76	
Federal O.A.B. tax	55.59	
Extra help—reporting	292.37	
Advertising commissions	98.00	
Copyright fees	24.72	
Surety bond	20.00	
Reprints	11.75	
Advertising refund	5.00	
Express	.60	
Total disbursements		17,562.25
Balance, December 31, 1940—Exhibit B		**$ 3,303.64**

EXHIBIT E

STATEMENT OF CASH RECEIPTS AND DISBURESMENTS, YEAR ENDED DECEMBER 31, 1940

MEDICAL DEFENSE FUND

BALANCE, JANUARY 1, 1940		$ 6,381.94
Receipts:		
Transfer of applicable portion of dues from the general fund—Exhibit C	$ 2,328.00	
Fort Wayne, Indiana, School Improvement bonds—matured	2,000.00	
Indianapolis, Indiana, City Hospital bond—matured	1,000.00	
Interest income:		
United States Treasury bonds	155.00	
Indianapolis, Indiana, City Hospital bond	47.50	
Marion County, Indiana, Flood Prevention bonds	85.00	
Fort Wayne, Indiana, School Improvement bonds	90.00	
Total receipts		5,705.50
		12,087.44
Disbursements:		
Attorney's retainer fee	600.00	
Malpractice fees	797.50	
Treasurers bond	15.00	
Printing	21.45	
Bank collection charge	.35	
U. S. Treasury "Baby Bonds," $4,000 par value	3,000.00	
Total disbursements		4,434.30
Balance, December 31, 1940—Exhibit B		**$ 7,653.14**

REPORT OF THE CHAIRMAN OF THE COUNCIL

House of Delegates,
Indiana State Medical Association

Gentlemen:

As detailed reports of the business which has been brought before the Council during the past year already have been published in the December, 1940 and the February, 1941, issues of THE JOURNAL, your chairman is taking the liberty of presenting to you at this time only a brief summary of some of the outstanding actions taken by the Council.

FIRST MEETING, FRENCH LICK, OCTOBER 29, 1940

With Dr. M. A. Austin, of Anderson, the chairman, presiding, the Council convened at the French Lick Springs Hotel at 12:30 p. m., with the roll call showing 100 per cent attendance. In addition to the councilors, the members of the Executive Committee, and the chairmen of the Legislative and the Convention Arrangements Committees were present.

Dr. Elliott Succeeds Dr. McKain

The members of the Council paid a silent tribute to the memory of Dr. M. C. McKain, councilor of the Fourth District, who was killed in an automobile accident. Dr. J. C. Elliott was welcomed to the Council as Dr. McKain's successor.

Councilor District Reports

The councilor district reports, as printed in the October, 1940, JOURNAL and in the Handbook of the House of Delegates, were accepted unanimously.

Membership Certificate Proposal Deferred

The Council did not approve the suggestion of the Executive Committee that a membership certi-

ficate that could be displayed in a physician's office should be provided for each member of the association.

Selective Service Boards

Dr. Austin spoke of letters of appreciation that had been received from Lieutenant Colonel Robinson Hitchcock, head of selective service in Indiana, and the Governor of Indiana, complimenting the state medical association upon the cooperation it had offered the Governor "to procure excellent medical personnel for the administration of Selective Service in Indiana."

Journal Elections

Dr. E. M. Shanklin of Hammond was re-elected unanimously to remain editor of THE JOURNAL for 1941.

Dr. Lall G. Montgomery of Muncie and Dr. Herman M. Baker of Evansville were elected unanimously as members of the editorial board.

Dues of Men in Service

The Council discussed the question of the remission of the dues of any physician who was called into service with the armed forces of the United States. (House of Delegates later approved a resolution with such a provision at the French Lick session.)

SECOND MEETING, FRENCH LICK, OCTOBER 31, 1941

The second meeting of the Council was called to order directly following the meeting of the House of Delegates, the roll call showing ten councilors, the president-elect 1940, president-elect 1941, the attorney for the association, and the executive secretary present.

Dr. Romberger Elected Chairman of the Council

Dr. Samuel Kennedy was appointed chairman pro tem of the Council, due to the fact that Dr. M. A. Austin of Anderson was selected as president-elect of the state association for 1941; and, immediately afterwards, Dr. F. T. Romberger of Lafayette was elected chairman to serve until January 1, 1941.

Student Health Plans Discussed

The Council discussed the plans in operation at Indiana and Purdue Universities for taking care of student health.

MIDWINTER MEETING, INDIANAPOLIS, JANUARY 12, 1941

Dr. Floyd T. Romberger of Lafayette, chairman, called the Council to order at 10 o'clock, the roll call showing twelve councilors present, along with the state association officers and the members of the Executive Committee.

Dr. E. H. Clauser of Muncie was welcomed as a newly-elected member of the Council, succeeding Dr. M. A. Austin of Anderson who was chosen president-elect of the association for 1941.

Perry County Case

The Council discussed the request of a physician in Perry county who appealed to the Council against the findings of his county medical society in suspending him from membership. The Council decided that it would be unwise to take action at that time because of a lack of sufficient data on the case and suggested that complete evidence be obtained and mimeographed copies be sent to each councilor. This has been done.

Reports by Districts

Reports of the councilors by districts showed that the respective medical organizations in each district were in good shape.

Reports of Officers

Treasurer's report showed that the association had operated with a net increase of $6,533.97 over the balance at the end of 1939.

Dues of Physicians in Military Service

The Council ruled that the dues of physicians in military service should be paid out of the reserve funds of the association and that the dues of a physician who has been placed in active service "should be refunded on a pro-rated monthly basis dating from the time he enters active duty."

Plans for 1941 Annual Session

A preliminary report, along with proposals and suggestions for the annual session to be held in Indianapolis on September 23, 24 and 25, 1941, was presented to and approved by the Council.

The Council approved an estimated budget of $2,000 for expenses of the local committees at the annual session.

Membership Report

The membership report by districts showed that out of a total of 4,171 physicians in the state, 3,189 were members of the association in good standing in 1940 as compared with 3,145 in 1939.

Merger of LaPorte and Starke County Medical Societies

Council approved the proposal to join LaPorte and Starke County Medical Societies.

Legislative Matters

The Council approved: (1) Legislation to reorganize the State Board of Health; and (2) changes in the hospital commitment law as recommended by the House of Delegates. In addition, the Council discussed various cash indemnity and medical service plans and non-profit hospitalization proposals.

Reports of Committee Chairmen

All committee chairmen and officials of the state association made brief reports at the luncheon.

Medical Students and the Draft

Dr. W. D. Gatch, dean of the Indiana University School of Medicine, spoke of the drafting of medical students and urged the Council to take some action asking the Selective Service authorities to allow medical students to complete their course. He said: "If something isn't done pretty quickly every hospital in the state is going to be up against it for interns." The Council authorized Dr. Gatch to communicate with Dr. Abell, Dr. Dykstra, and Dr. West in regard to the situation.

Nominations for Editorial Board

The following nominations were received for the Editorial Board: Drs. W. W. Duemling, Fort Wayne; Robert V. Hoffman, South Bend; R. A. Fargher, LaPorte; Eugene F. Boggs, Indianapolis; James B. Maple, Sullivan; Robert G. Moore, Vincennes; J. O. Ritchey, Indianapolis, and N. K. Forster, Hammond. Two places will be filled on the Editorial Board from this group of nominations at the first meeting of the Council on September 23, 1941.

Physician on Industrial Board

The Council went on record approving the suggestion that a physician be named to the Industrial Board.

Postgraduate Program Proposal

The Council laid on the table the proposal of the postgraduate committee asking for $1,000 to conduct postgraduate work this coming year.

Study Committee on Aid to Needy Physicians

This committee, appointed by the House of Delegates, is to be a fact-finding committee, headed by Dr. Ira Perry.

Elections for 1941

Dr. C. A. Nafe and Dr. C. H. McCaskey, the present members of the Executive Committee, were re-elected for 1941.

Dr. Floyd T. Romberger was elected chairman of the Council for 1941.

CHANGE IN BY-LAWS

Your chairman feels that an addition to Section 5, Chapter X, of the By-Laws of the Indiana State Medical Association would help to clarify the problem of membership which has arisen on several occasions in the past and recently again has become acute because of a situation in one local county medical society where a physician was suspended from membership and has appealed to the Council. The suggested addition is italicized in the following:

> "Sec. 4.—Each county society shall be judge of the qualifications of its own members, but, as such societies are the only portals to this Association and to the American Medical Association, every reputable and legally registered physician who does not practice or claim to practice, nor lend his support to, any exclusive system of medicine, shall be entitled to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every physician in the county to become a member.
>
> "Sec. 5.—Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council, and its decision shall be final *as to his fitness to remain or to become a member of the Indiana State Medical Association. If declared eligible, the physician then may apply for membership, without the further consent of his local county society, in any county society under this Association's jurisdiction, and thus have continued or restored to him the benefits of membership in the Indiana State Medical Association and the American Medical Association.*"

Reasons for Suggested Change

The wisdom, the advantages, and the necessities of the amendment are at once apparent. The Council merely passes upon the fitness of the physician to remain or to become a member of our State Association, as detailed in the preceding Section 4. In the larger sense, the Council has and should continue to have this preeminent authority. Yet the change here indicated does not quarrel with, nor detract in the least from, the inalienable right of any county society to determine its own membership upon whatsoever basis it may desire; rather the reverse, the amendment reaffirms and substantiates to all the county societies that inherent right and privilege by refraining from imposing a decision of the Council upon a component county society against that society's own will. The logic and the sagacity of such restraint is beyond controversy; we recement and further solidify the broad foundation upon which the superstructure of our State Association is built; this because without strong, vigorous, actively cooperating county societies our State Association soon would cease to function effectively.

In cases in dispute, after hearing and examining the evidence, the Council may declare the physician ineligible or eligible to State Association membership. In the former event, the case then would be closed until the professional conduct of the physician warrants his reconsideration. However, if declared eligible, then the physician should have the right to apply for membership in any county society under our jurisdiction which will accept him. If none accept him, then he must be, indeed, poor timber for our association. However, in the stating of, and in the establishing of support for, our own rights, and in the protecting of the rights of our component county societies, let us also exercise that quality of statesmanship which guarantees to every ethically practicing physician in our state his own individual right to state and A.M.A. fellowship. Let's play fair with both contending parties.

Word of Appreciation

In bringing to a close the first year of my incumbency as Chairman of the Council, I wish to express my most profound thanks and my most sincere appreciation for all the help which was given to me by our state officers, by our association headquarters staff, by each individual councilor, and by my many professional friends and well-wishers throughout the state. The hearty and willing cooperation

of all these has turned that which could be an onerous job into a most pleasurable task, indeed.

Day by day the eery headlines of many of our metropolitan papers advise us that we are catapulting from one perilous crisis to still another more supreme emergency. Almost hourly, as we listen to the radio, we are led to believe that we are suspended by the most slender thread above the yawning abyss of social destruction. Ever so often and all too frequently the several and respective saviors of our destiny, self-appointed, usually, piously inform us that America just has been snatched by the flying coat-tails from plunging into the bottomless pit of everlasting chaos. Be not deceived too easily. Be not stampeded. While it cannot be denied that the world-wide convulsions now taking place in the fields of national and internaional politics, trade, economics, and so-called social orders may have serious repercussions in medical practice, nevertheless it behooves this House of Delegates to pursue its deliberations with the same calmness and even tenor of its way as have proved so successful and satisfying in the past.

As every member of this House knows, the Council of our state association is the creature of this House of Delegates. The Council is your servant. We want to be just that. The Council, through its executive headquarters and executive committee, performs all the duties and functions of this body when you are not in session. The redistilled wisdom of your deliberations is the guide book to our actions. We have no other ambition than to carry on, on your behalf, for the welfare of every individual practicing physician in this state, this to the best of our ability.

Floyd T. Romeerger, M.D.,
Chairman

REPORTS FROM DISTRICT COUNCILORS

FIRST COUNCILOR DISTRICT

The annual meeting of the First District Medical Society was held at the Country Club in Princeton on May 8, 1941. Dr. C. J. Clark of Indianapolis read a very interesting paper on the newer trends in the care of hypertension.

The following officers were elected for the ensuing year: President, Dr. R. R. Acre, Evansville; Vice-president, Dr. Wendell C. Stover, Boonville; Secretary-treasurer, Dr. Stephen L. Johnson, Evansville. The Councilor for the next three years will be the present incumbent.

I. C. Barclay, M.D., *Councilor*

SECOND COUNCILOR DISTRICT

The Second Councilor District held its annual meeting at Vincennes, May 27, 1941. Doctor Robert Moore, president, and Doctor J. S. Brown, secretary, have the thanks of the District for a very pleasant and profitable meeting.

In 1942 the District will meet at Washington on Tuesday, June 2. The officers for 1942 are: B. O. Burress, M.D., of Washington, president; and J. S. Brown, M.D., of Carlisle, secretary.

The county societies in this district have been active throughout the past year.

Defense duties have become increasingly heavy to many physicians as the program develops but organized medicine has met every demand made by the National Government.

H. C. Wadsworth, M.D., *Councilor.*

THIRD COUNCILOR DISTRICT

The Third District Medical Society has been functioning very quietly. Our fall meeting at the Tuberculosis Hospital at New Albany presented a very excellent program, which was poorly attended, due to the over-work of most of the doctors in this district.

The defense projects which are located in this district have thrown an unusual amount of work on the physicians. We have lost several doctors to the army and the new people that have arrived have produced maladjustment on the patients and doctors. This is only temporary and will soon be corrected, as soon as the plant has been finished.

W. H. Garner, M.D., *Councilor*

FOURTH COUNCILOR DISTRICT

The medical examination set-up of Selective Service in this district was completed by our late Councilor, Dr. M. C. McKain, and has functioned quite smoothly. The physicians attached to the various local boards are doing an enormous amount of hard work which, according to reports, compares favorably with other districts in this and other states.

Some months ago there was a shortage of physicians in a few places, chiefly in the smaller towns and rural communities, on account of physicians entering military service and illness among physicians. Lately, however, readjustments have been made and medical service is near normal.

All counties in the Fourth District are organized with one exception. Two of those organized are not very active as such. Our district meeting was held at Batesville, May 21st, the hosts being the Ripley County Society, Dr. George S. Row, president; Dr. J. T. Carney, secretary. We had a good program, fair attendance, and a fine chicken dinner in the evening which was enjoyed by all present, including Dr. Mitchell, president of our State Association, and Mr. Hendricks, our faithful executive secretary, who were on hand to give us the latest word from the executive committee.

Dr. O. H. Stewart, Aurora, was elected president and Dr. C. F. Overpeck, Greensburg, vice-president; Dr. E. L. Libbert, Lawrenceburg, was appointed secretary for the ensuing year. Dr. J. C. Elliott, Guilford, was elected district councilor.

J. C. Elliott, M.D., *Councilor*

FIFTH COUNCILOR DISTRICT

The component county societies of the Fifth District are all active, holding regular, well attended

meetings. Nothing of note has come up during the past year requiring any particular activity on the part of the Councilor.

The spring meeting of the District Society was held in Terre Haute on May 2nd. The guest of honor at this time was Dr. A. R. Barnes of Rochester, Minnesota.

Dr. Palm, of Brazil, president of the District Society, has been called into active military service and a date for the fall meeting has not as yet been set.

O. O. ALEXANDER, M.D., *Councilor.*

SIXTH COUNCILOR DISTRICT

The Sixth District Medical Society has had a very successful year. All of the county medical societies in the district are meeting regularly and having fine programs.

The District Medical Society met at New Castle, on May 16, 1941. There was an unusually large attendance and a splendid program.

The next meeting of the District Medical Society will be held at Liberty, Indiana.

SAMUEL KENNEDY, M.D., *Councilor*

SEVENTH COUNCILOR DISTRICT

The Seventh Councilor District has suffered the temporary loss of many of its members through call to military service. These men are scattered over the entire country and all would appreciate hearing from their fellow practitioners. We may expect few new members for the next few years since the vast majority of internes must enter the army upon completion of their internship. To keep our local and district societies active will require diligent, active work by all members.

The spring meeting of the Seventh District Society was held with the Indianapolis Medical Society. An interesting round table on x-ray was enjoyed by all.

The fall meeting will be held in Indianapolis at the Indianapolis Athletic Club. The exact date of this meeting with the program will be announced later. We cordially invite all members of the State Association to attend.

C. J. CLARK, M.D., *Councilor*

EIGHTH COUNCILOR DISTRICT

We have 205 members in the five counties composing the Eighth District Society. Each unit meets regularly with three months vacation except Randolph County which has two. Average attendance is 45%. All have an active auxiliary except one in which case an organization is being formed.

Madison County holds one meeting each year jointly with a neighboring county outside of the district. This has proved to be a very stimulating practice. Delaware - Blackford Society holds one meeting in Hartford City, annually.

Delaware County has followed the suggestion of the state organization in the matter of examinations of school employees as provided by the last session of the legislature. The designation of fees, collection of funds and distribution to examining physicians is done through the office of the secretary. Each employee is examined by his chosen physician and only properly recognized laboratories are used. We hope that this will set a precedent for medical service for state and federal health projects.

The annual meeting was held in Winchester June 11. An educational, entertaining and social program was arranged for morning, afternoon and evening sessions by the Randolph Society. Doctors J. C. Walker, Dayton, Ohio, L. T. Rawles, Fort Wayne, M. M. Zinninger, Cincinnati, Ohio, W. D. Gatch, Indianapolis, A. M. Mitchell, Terre Haute and Mr. Thomas Hendricks, Indianapolis, were guest speakers.

District officers elected are Dr. Sam Litzenberger, Anderson, president, Dr. Fred Wishard, Anderson, secretary and treasurer, and Dr. E. H. Clauser, Muncie, Councilor. By invitation the next meeting will be sponsored by the Madison County Society at Anderson.

E. H. CLAUSER, M.D., *Councilor*

NINTH COUNCILOR DISTRICT

Everything within this district has been moving smoothly the past year. The county societies have held regular and interesting meetings, and they have held their organizations solidly and intact.

The Ninth District meeting was held May twenty-second in Frankfort, the members being the guests of the Clinton County Medical Society. The success of the meeting was due to the organizing ability and tact of President Sims, Vice-president Van Kirk, and Secretary Beardsley and the several committees under their direction.

The highlight of the evening banquet was a most interesting address by Dr. A. F. Weyerbacher of Indianapolis. The attendance was very good, and our various state officers graced the occasion with their presence and timely remarks.

The District meeting for 1942 will be held Thursday, May twenty-first, at the Tippecanoe Country Club, Monticello, as the guests of the White County Medical Society. The officers for 1942 are:

PRESIDENT, H. B. GABLE, M.D., Monticello
VICE-PRESIDENT, H. W. GREIST, M.D., Monticello
SECRETARY-TREASURER, JOHN C. CARNEY, Monticello

FLOYD T. ROMBERGER, M.D., *Councilor*

TENTH COUNCILOR DISTRICT

(No report received)

ELEVENTH COUNCILOR DISTRICT

The Eleventh Indiana Councilor District is doing well. It has a few more paid-up members this year than it had at this time last year. The society made arrangements to pay all members' dues who are in the armed services of the United States; this helps

account for our membership remaining high. The seven counties composing the district are well organized and active.

Recently the Scientific Program Committee met to arrange the next District meeting to be held at Logansport on Wednesday, October eighth. This will probably take place at Longcliff Sanitarium.

Speakers for the Logansport meeting are: Dr. Harry E. Mock, Chicago; Dr. John Thrasher, Indianapolis, and Dr. C. L. Williams, Logansport.

Our last meeting, held at Kokomo in May, was a very good meeting and up to standard; however, the attendance was low because of the great heat, Kokomo being the hottest city in Indiana on that day.

The highlight of the day was a speech at the evening banquet by Glen Hillis.

Ira E. Perry, M.D., *Councilor*

TWELFTH COUNCILOR DISTRICT

Throughout the Twelfth District, the component county societies appear in good order.

Adams County has been unable to hold medical society meetings because so many of the members have been called for active duty with the army.

The Northeastern Academy of Medicine, comprised of Noble, Steuben, DeKalb and LaGrange counties, meets as a whole, giving them an opportunity to have a good attendance, thus permitting good speakers and educational programs. One meeting a year is held in each county as a means of keeping their identities as county societies clear.

All of the counties of the Twelfth District, with the possible exception of Adams, have had very good meetings throughout the year. The physicians have responded to the call of Uncle Sam, both as officers in the Medical Department of the Army and Navy and as Draft Board examiners. Very little dissension has been expressed by any member serving on these boards. The quality as well as the quantity of work performed has been very commendable.

Harvey L. Murdock, M.D., *Councilor*

THIRTEENTH COUNCILOR DISTRICT

The affairs of the Thirteenth District have progressed in a satisfactory manner the past year. It has been particularly noticeable that the gratis services of the profession in connection with the induction of the selectees have been rendered faithfully and well. The character of this service should have a most favorable reaction on public opinion.

The annual meeting of the society will be held in South Bend on Wednesday, November fifth. We extend a cordial invitation to you to join with us at that time.

Alfred Ellison, M.D., *Councilor.*

EXECUTIVE COMMITTEE

House of Delegates and the Council,
Indiana State Medical Association

Gentlemen:

I. PROFESSION MEETS NATIONAL EMERGENCY

Greatest concern of your committee this past year naturally has been in regard to problems arising from the national emergency. Some two hundred Indiana physicians have left their practices and are now doing active, full-time military service. Several hundred more are rendering volunteer services as medical examiners for local selective service boards and as members of advisory and appeal boards. Because of emergency duties nearly every physician is working longer and is carrying a more arduous schedule. So faithfully have the individual members of the profession answered the call and so effective has been the work of preparedness by the members of the medical profession in this state that Colonel H. D. Corbusier of Plainfield, New Jersey, Medical Reserve of the U.S. Army, and president of The Association of Military Surgeons of the United States, made the following statement in a letter to Dr. A. M. Mitchell, president of the Indiana State Medical Association.

> "I am profoundly impressed with the far sightedness of your state association when I read your transactions dated June 7, 1940, with regard to the action taken at that time, concerning medical preparedness. I also perused your *Journal* of September, 1940, which is the special military number and one which might well be emulated by every state medical society. In my correspondence with the various states, I have not yet come across such an outstanding program. This is just the sort of thing that the military surgeons of the United States had in mind in sponsoring the program regarding which all the state societies have been informed."

The detail work and planning in regard to the national emergency has been done by the medical preparedness committee of the state association whose members deserve great credit, but the repercussions of the emergency have been felt in almost every field of medical activity and your Executive Committee and other committees of the state association have been faced with innumerable problems arising from the national situation.

Your committee suggests that each society cooperate with its county Civilian Defense Council. These councils, as you know, function under the direction of the Administrative Defense Council of Indiana. The county health officer and a representative from each medical society are members of each of these local groups.

Your committee particularly urges the profession to maintain its leadership and interest in the development of industrial medicine which is one of the most important phases of the national emergency program. With tremendous growth of new industries in many Indiana communities, proper

committees should be appointed in each society to facilitate health and medical services and cooperate with industrial leaders and public health officials in this rapidly expanding field.

II. DUTIES AND ACTIVITIES OF ASSOCIATION DURING 1940 AND 1941

Despite the fact that emphasis necessarily was placed upon national defense in all its ramifications, the organization of the Indiana State Medical Association of course had to fulfill many routine duties and carry on the numerous usual activities. The report of the duties and functions of the committee can best be made under the following three headings:

A. Administrative.
B. Management of THE JOURNAL.
C. Administrator of the medical defense fund.

A. ADMINISTRATIVE.

1. **Monthly meetings of committee.** During the year the Executive Committee held regular formal monthly meetings but as problems were so numerous and the tempo of affairs so rapid, informal meetings, conferences and get-togethers were held almost every day by two or more members of the committee in order to solve problems that could not await formal action of the entire committee. Whether through formal conference or informal meeting, the members of your committee are ever careful not to over-reach their authority, and when any question of policy arises that may differ from the broad program laid down by the House of Delegates or the Council, the Executive Committee is most circumspect in its proceedings. The committee always welcomes individual members of the association or representatives from local medical societies or spokesmen for various committees and groups of the association to the monthly meetings of the Executive Committee in order that the discussion in regard to any specific problem may be thorough and, as far as possible, a detailed program completely worked out for any necessary action.

2. **Membership.** The most significant fact in regard to membership during the past year of course is that 143 physicians are maintained as members of the Indiana State Medical Association although they are serving with the military forces in this country. For the eighth successive year an increase is shown in the membership of the Indiana State Medical Association, the figures for the last five years being as follows:

Year	*Number of Physicians in Indiana*	**Regular Members*	*Honorary Members*	*Total Members*
1937	4,025	2,942	40	2,982
1938	4,081	2,970	62	3,032
1939	4,081	2,982	95	3,077
1940	4,132	3,026	40	3,120
1941	4,132	*3,064	106	3,170

* Of the regular members 143 are in military service.

(a) *No state dues for physicians in military service.* The following resolution was passed by the House of Delegates at the 1940 annual session at French Lick:

> "The Indiana State Medical Association shall remit the dues of those doctors called to the colors for the duration of that service."

At the midwinter meeting of the Council held January 12, 1941, the meaning of this resolution was amplified by the following statement:

> "*Exact time when a physician in military service is eligible to complimentary membership.* Motion was made by Dr. Clark that the dues of a physician who has been placed in active duty should be refunded on a pro-rated monthly basis, dating from the time he enters active duty. Motion duly seconded and carried."

(b) *Honorary members.* The committee again urges each county medical society to check its records in order that all physicians who are eligible to be honorary members may be included in this classification. Article IV, Section 5, of the Constitution reads as follows regarding honorary membership:

> "Honorary members shall consist of representative teachers and students of science allied to medicine and of physicians and surgeons of distinction not members of the Indiana State Medical Association, who may by vote of the House of Delegates be elected to honorary membership; and any physician of the State of Indiana who has attained the age of seventy-five years and has held membership in the Indiana State Medical Association for twenty years or more may be elected to honorary membership by vote of the House of Delegates, provided his name be proposed for such honorary membership by the county medical society of which such physician is a member."

The Executive Committee has ruled that if the honorary members desire THE JOURNAL, the subscription price should be paid by the local county medical society.

(c) *Necessity of reporting honorary members.* Several societies have not sent in the names of men who are eligible to honorary membership and as a result on at least one occasion the physicians who should have been listed as honorary members have asked that their state dues be refunded for past years, although their names had not been certified to headquarters office in accordance with regulations. The Executive Committee feels it has no authority to refund such dues, hence it hopes that the officers of each county medical society will be sure that the names of all members entitled to honorary membership are certified to headquarters office during the year when such certifications are due.

3. **Socialized medicine.** The pressure for socializing the practice of medicine perhaps was not as

great this past annual period as it has been in the last few years. This undoubtedly is due to the fact that the nation is concentrating its efforts upon national defense. However, the officers of your society have been as keenly on the lookout for propaganda leaflets and the actual high explosives of socialized medicine as fire watchers on the roof tops of London. Some of the movements and activities of the past year which bring up the question of socialized medicine are:

(a) *Study of Federal Responsibility for Public Health and Health Insurance by National League of Women Voters.* This study will be one of the major projects of the League for the coming year. If, after the study is made, the League decides that the practice of medicine in this country should be socialized, it will then formulate and back legislation advocating changes in the traditional method of medical practice. Numerous conferences have been held with the League leaders of Indiana, who, without exception, have expressed the desire to make the study in this state a factual survey and have asked the medical profession to present material which would aid them in this study. With this in view, the Executive Committee authorized Dr. A. M. Mitchell, the president of the association, to appear before the Board of Trustees of the American Medical Association and ask that special literature be prepared by the American Medical Association especially for the League of Women Voters. Such material should answer questions in regard to the Wagner bill, public health services, child and maternal welfare, medical attention rendered low income groups, the Capper-Epstein legislation, and numerous other topics that would be discussed by the League. Your committee urges each physician to familiarize himself with this program of the League and urges each physician to obtain facts with which to answer questions that may be brought up by the local League in his own community. The committee feels that this is a splendid opportunity for the members of the Woman's Auxiliary to the state medical association to render service to the public welfare by acquainting themselves fully with the problem and taking part in the discussions of the League upon this subject.

In this connection your committee suggests that the members of the Auxiliary familiarize themselves with the article on "Morale," written by Dr. R. L. Sensenich of South Bend, a member of the Board of Trustees of the American Medical Association, which appeared in a recent issue of the National Woman's Auxiliary Bulletin.

(b) *National Youth Administration.* The National Youth Administration, which is furthering the education of ten thousand or more youth in Indiana, largely in the technical and industrial fields, during the past year inaugurated a health check-up program on the youth receiving N. Y. A. aid. The officials of this group have established working arrangements with the state and local county medical societies and the Executive Committee passed the following motion at its regular meeting on March 16, 1941:

> "The Executive Committee recommends that the county medical societies investigate and cooperate with the National Youth Administration state consultant in securing proper physical examinations for the National Youth Administration groups."

The Executive Committee, together with the medical director of the National Youth Administration for Indiana, has laid down a set of principles in regard to this check-up program. The basis of these principles is that (a) Each youth be allowed insofar as possible to choose his own physician, and that (b) Local county medical societies cooperate with the N. Y. A. officials in each community to see that the job is done in each county of the state. The general approach to this problem was the same as that used in establishing relationships between county medical societies and the Farm Security Administration several years ago. In many counties the society suggested that those men who had served as examiners on the local Selective Service Board (who receive no compensation) be given the opportunity to do the health check-up on the National Youth, for which they receive compensation.

The Executive Committee is pleased to report that the state administrative officials of the N. Y. A. have consulted constantly with the medical profession in working out this program.

(c) *Farm Security Administration.* Although rumors exist that in at least one other state the Farm Security Administration has abrogated the principle of the patient-physician relationship, insofar as information has come to the headquarters office, this principle has been upheld here in Indiana and the Farm Security groups in this state always have made their arrangements for medical services through the local county medical societies. In most of the places where the set-up has been undertaken the program seems to be working satisfactorily. However, word has been received at the headquarters office that one county medical society has discontinued its working agreement with the Farm Security Administration.

(d) *Group Health, Inc.* As a result of the outcome of the American Medical Association trial in Washington, great impetus has been given the Group Health, Inc., backed by Kingsley Roberts, Hugh Cabot, Henry E. Sigerist, Michael Davis, and other groups who have sponsored socialized medicine. Just what the ultimate effect of the A. M. A. trial will be upon the formation of prepayment health plans cannot yet be determined and probably will not be determined until after the final verdict is rendered in the suit against the A. M. A. in Washington.

(e) *Medical service plans in Ohio and Michigan.* In the meantime the legislatures have passed legislation setting up medical service plans under the direction of the profession in Ohio and Michigan. Your officers are keeping close track of the development of these plans and are making a study of them in order that the people of Indiana may continue to receive the best medical care that the profession can render.

(f) *Nutrition conference at Washington, June 1941.* One of the most significant meetings of the entire year from the standpoint of medicine was the nutrition conference held at Washington under the direction of Paul V. McNutt, administrator, Federal Security Agency. In many respects this conference was comparable to the now famous National Health Conference that was held at Washington several years ago where a general program for the socialization of medicine was advocated. The members of the medical profession always have felt that at the National Health Conference the cards were stacked against the profession in advance. The feeling in regard to the National Nutrition Conference is far different. The American Medical Association as such was recognized through invitations to the members of its Council on Foods and to members of several other committees and as a result many physicians representing the A. M. A. in one capacity or another attended this conference. The officers of your state society were invited to attend this conference. The principles adopted by the conference were approved by the House of Delegates of the A. M. A. at the Cleveland meeting. The program of the National Nutrition Conference is to be carried on in Indiana through the Indiana Defense Council and the local defense councils in each county. Your committee recommends that each county medical society cooperate with the civilian defense council of its community and urges physicians to take leadership in attempting to solve these various nutritional problems, for the medical profession better than any other group has the knowledge, experience and training necessary to determine and correct nutritional defects among the citizens of Indiana.

4. **Medical Relief.**

(a) *Appellate Court ruling.* The committee again this year wishes to call the special attention of all members to the work being done by the Medical Relief Committee of the state association. The new ruling of the Appellate Court is most helpful in clearing up a question which long has been troublesome by placing the responsibility for emergency medical services upon the trustee of the township where the person suffers injury. For detailed information in regard to this ruling, see the article by Leo X. Smith, legal adviser of the Indiana Township Trustees Association, in the July 1941 issue of THE JOURNAL of the Indiana State Medical Association.

(b) *University Hospitals commitment bill.* As the amendment sponsored by the Indiana State Medical Association to the present University Hospitals commitment bill failed to pass in the legislature, the Executive Committee urges that further study be given this subject in order that proper legislation, which will be satisfactory to all elements, if possible, be prepared and presented to the next session of the legislature.

5. *Change in syphilis test card.* The committee desires to call the attention of the profession to the change made in syphilis test cards and the statement made by Dr. John Ferree, secretary of the State Board of Health, relative to the removal from these cards the clause, "The circumstances of this examination are such that I believe it should be made without charge." Dr. Ferree's statement follows:

"For some time we have been urged by the U. S. Public Health Service to remove this clause because they felt that it put syphilis in a different category than other communicable diseases in which cases the physician is not required to make such a statement. Their feeling is that this reacts detrimentally to the syphilis control program and that there is no good reason for this discrimination.

"From the practical standpoint we have never believed that the statement has ever meant very much. After consultation with some of the laboratory men of the State, it was felt that the Board would be justified in removing this clause from the card, especially since its retention made questionable the continued allotment of funds to the State of Indiana for venereal disease control work.

"It is our sincere hope that the physicians of the State will continue to send their serological work for syphilis to the private clinical laboratories in Indiana whenever possible.

"The following excerpts from the minutes of the Board Meeting are, I believe, self-explanatory:

> 'The report on the removal of the clause on laboratory serology cards which says, "The circumstances of this examination are such that I believe it should be made without charge," was presented and on motion duly made and seconded said clause was ordered stricken from the laboratory serology card.' "

6. **Placement of physicians.** During the year numerous requests have been received at the headquarters office from smaller communities desiring the services of physicians. Time and again the names of these communities have been given to physicians who have indicated that they might be interested in a possible location and also to interns who are finishing their training and are seeking a permanent location. However, despite numerous and urgent attempts to obtain physicians, there are

certain localities in the state where physicians simply are not interested in locating. A study of several of these particular localities has brought out the fact that the people will expect the local doctor to do all the minor work and yet when they have some major trouble they will go over the head of the local doctor and go direct to the physicians in the larger communities. Your committee feels that this practice makes it difficult for some communities to obtain the services of a well qualified physician.

7. **Physicians used by advertising optical firms.** In order to circumvent the statute which makes it illegal for optometrists and opticians to be employed by advertising optical firms, a number of these "chain store" companies have employed osteopaths or licensed physicians. In some cases the physicians so employed have been members of the Indiana State Medical Association. Your committee urges that each local county medical society check on this situation in its own community, as such practice to get around the optometry law is looked upon with marked disfavor.

8. **Tuberculosis and hard of hearing statutes.** Statutes providing for the examination of school employees for tuberculosis and audiometer tests for the hard of hearing were passed at the 1941 session of the legislature. As many factors enter into the administration of these acts involving school officials, township trustees, health authorities and doctors, committee meetings were held, attended by representatives of the various interested groups and general principles were established for the administration of these acts. For working out the details and ironing out insofar as possible difficulties and misunderstandings, the Executive Committee takes this occasion to express its appreciation to Dr. C. T. Malan, State Superintendent of Public Instruction, Otto Jensen, Director of the State Board of Accounts, Dr. John W. Ferree, secretary of the State Board of Health, the officials of the Indiana Township Trustees Association, the Indiana State Teachers Association, the Indiana Tuberculosis Association, and the Indiana League for the Hard of Hearing.

B. THE JOURNAL.

Because of the resignation of Miss Hope Toman, who, after many years of service with The Journal, has changed her residency from Indiana because her husband is in military service, a reorganization of The Journal office has been necessary. Miss Toman will be succeeded by Miss Nella Rokke as assistant editor and assistant to the managing editor. Your Executive Committee at this time expresses its deep appreciation for the services rendered by Miss Toman during these many years and only hopes that the high standard of workmanship upon The Journal set during the time when Miss Toman served will be maintained. The committee calls the attention of the profession to the editorial which appears in the August Journal in regard to Miss Toman.

Advertising. Advertising in medical journals is definitely limited unless they are willing to accept what are now considered to be "border line" products. While the majority of our members might find no objection to such advertising, and many of you probably use, daily, products which we do not accept for advertising, we sometimes wonder if we are justified in refusing the considerable amount of available revenue from this source. However, The Journal's strict policy in advertising has been scrupulously maintained throughout its thirty-four years of existence and still is being maintained in the idea that the members of this Association prefer to withgo such advertising revenue in favor of a Journal of the very highest ethical standard in every possible respect.

A comparison of advertising revenue for the first six months of 1941 with previous years is given:

First 6 months	*1938*	*1939*	*1940*	*1941*
Bureau Agency	2,940.44	2,571.24	2,376.19	2,570.30
Direct	1,827.65	2,569.75	2,163.65	2,400.40
	4,768.09	5,140.99	4,539.84	4,970.70

The Journal needs the active cooperation of every member of the Association in supporting its advertisers. As you can see by the above figures, the advertisers contribute greatly to the support of your magazine; it is up to you to support those advertisers in return.

Pages Printed in 1940 in Comparison with Other Years:

Year	*Reading Pages*	*% Read.*	*Adv. Pages*	*% Adv.*	*Total*	*Av. Pages per Issue*
1933	634	64	358	36	992	82
1934	604	60	408	40	1012	84
1935	704	62	428	38	1132	94
1936	680	59	472	41	1152	96
1937	674	57	514	43	1188	99
1938	728	59	504	41	1232	102.6
1939	730	59	502	41	1232	102.6
1940	740	59	512	41	1252	104.3

It will be noted that there has been a steady though slight increase in the number of pages published in the years during which The Journal has been published from the headquarters office of the Association.

C. MEDICAL DEFENSE ACTIVITIES

1. A survey in regard to the various medical defense policies offered by commercial companies has been prepared and it is hoped that it may be published soon in The Journal of the Indiana State Medical Association. This survey was made by the Insurance Audit and Inspection Company of Indianapolis, a non-interested organization which "could call them as it saw them." The committee believes that this is the first time that such a comparative survey has been made of this subject.

2. **Legislation in regard to malpractice suits.** Every physician in the state will be interested in the legislation passed at the 1941 session of the General Assembly which requires that actions for damages against physicians be filed within two years from date of their occurrence. The old statute of limita-

tions provided that actions for personal injuries must be brought within two years from the date the injuries were inflicted; and that actions on contract must be brought within six years of date of alleged breach of contract. Where actions for malpractice were brought on the theory that the alleged wrongful act of the doctor constituted a breach of either an express or an implied contract, some judges were inclinded to the view that the action could be brought within six years, although the Indiana Supreme Court held otherwise in a case decided some years ago. The new statute makes it definite that no action can be brought for personal injuries, including injuries from alleged malpractice, after two years from the date of the injuries.

3. **Malpractice cases.** A year ago at the time of this report, September 1, 1940, the following fourteen cases were pending before the committee, six of which were closed during the year, leaving eight cases still pending:

Case No. 156 (Closed)—Suit filed March 27, 1928. Verdict for plaintiff for $2,500.00 after six days' trial in June, 1933; motion filed for new trial, but before argument thereon settlement was made by defendant directly with plaintiff's attorney, and case thus disposed of. Expense, $66.28, paid September 23, 1929; $350.00 paid June 30, 1933.

Case No. 200—Suit filed February 12, 1932. Pending.

Case No. 203—Suit filed August 22, 1934. Defendant deceased, but case still pending.

Case No. 212 (Closed)—Suit filed November, 1935. Case tried December 2, 1936. Nine days' trial and argument; verdict against defendants; case appealed by defendants. Case settled for $7,500.00 for one defendant, and $700.00 for the other defendant. Expense, $293.15, paid January 13, 1937.

Case No. 216—Suit filed March 16, 1936. Pending on change of venue in Columbus, Indiana, on demurrer of the plaintiff. Demurrer to be argued at a time to be set later.

Case No. 219 (Closed)—Suit filed March, 1934. Judgment against defendant on verdict of jury for $4,951.66. Motion for new trial sustained. Case settled for $150.00, and dismissed.

Case No. 221 (Closed)—Suit filed July 1, 1937. Settled out of court.

Case No. 225—Suit filed July 28, 1938. Pending.

Case No. 226—Suit filed November 5, 1938. Suit withdrawn and another filed January 16, 1939. Pending.

Case No. 227—Suit filed April 7, 1939. Pending.

Case No. 228 (Closed)—Suit filed September 23, 1939. Case dismissed October 9, 1940. Expense, $200.00, paid March 17, 1941.

Case No. 230—Suit filed November 18, 1939. Pending.

Case No. 231 (Closed)—Suit filed January, 1940. Compromise settlement. $1,500.00 paid to plaintiff. Payment of attorneys' fees pending.

Case No. 232—Suit filed April 11, 1940. Pending.

Since September 1, 1940, and up to August 1, 1941, the following seven new cases have come before the committee, two of which have been closed, making a total of thirteen cases pending at the present time as against fourteen unclosed cases at the same time last year:

Case No. 233 (Closed)—Suit filed January 22, 1940. Case compromised for $100.00 in full settlement. No trial. Expense, $100.00, paid September 27, 1940.

Case No. 234—Suit filed September 2, 1940. Pending.

Case No. 235—Suit filed September 12, 1940. Case ready for trial but no trial date set.

Case No. 236 (Closed)—Suit filed August 7, 1940. Ten days' trial. Verdict for defendant. Payment of attorney's fees pending.

Case No. 237—Suit filed December 16, 1940. Pending.

Case No. 238—Suit filed April 18, 1941. Defendant filed motion to make complaint more specific, on which the Court has not yet ruled.

Case No. 239—Suit filed May 1, 1941. Pending.

Expense incurred for medical defense from September 1, 1940 to August 1, 1941 (11 months) amounted to $300.00, as compared with $897.50 incurred during the period from August 1, 1939, to September 1, 1940.

4. **Medical Defense Fund Statement,** from September 1, 1940, to August 1, 1941, (11 months):

Balance, September 1, 1940		$ 4,613.25
Deposits:		
Dues, 84—1940 members at 75c	$ 63.00	
3,049—1941 members at 75c	2,286.75	
		2,349.75
Interest on bonds		467.50
Matured bonds		3,000.00
		$10,430.50
Disbursements:		
Investment in U. S. Treas. Bonds	$3,000.00	
Accrued interest on U. S. Treas. Bonds	332.20	
Malpractice fees	300.00	
Salary of Assn. attorney (11 months)	550.00	
Treasurer's bond	15.00	
Malpractice insurance survey	50.00	
Collection charges on bond interest	2.45	
		4,249.65
Balance in Medical Defense Fund checking account, August 1, 1941		$ 6,180.85

CLEON A. NAFE, M.D., *Chairman*
C. H. MCCASKEY, M.D.
A. M. MITCHELL, M.D.
M. A. AUSTIN, M.D.
F. T. ROMBERGER, M.D.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates,
Indiana State Medical Association

Gentlemen:

Your committee has continued throughout the year to maintain the closest cooperation with the officers and other committees of the Association. It has strived to carry out the wishes of the House of Delegates, the Council and the Executive Committee of your Association and, also, to cooperate with the A. M. A.

During the spring, the Committee spent much time and effort in protecting the interests of the profession during the State Legislature. As a whole, the results of this session were satisfactory. For details concerning the activities of the Legislature, you are referred to the articles published, at the time, in the Journal of the State Association.

Your Committee wishes to express its gratitude for the loyal support received from all of the component committees and district societies of the State.

Norman M. Beatty, M. D.,
J. William Wright, M. D.,
Co-Chairmen
George Daniels, M. D.
John Hewitt, M. D.
J. R. Doty, M. D.
George Dillinger, M. D.
Milton Popp, M. D.

THE BUREAU OF PUBLICITY

House of Delegates,
Indiana State Medical Association

Gentlemen:

I. A Look Backward and Forward

As Dr. William N. Wishard was one of the sponsors, original organizers and ever since its creation in 1922 had served as its chairman, it is only natural with a leader of his strength of character that the Bureau of Publicity necessarily has reflected the sound judgment, forward-thinking and high standards of attainment demanded by Dr. Wishard. Hence, it is not surprising that at the first meeting of the Bureau following his death the committee stated that it would continue insofar as possible the general policies set up by the Bureau for the past nineteen years under Dr. Wishard's leadership.

II. Two Very Important Matters

Despite the fact that few meetings were held during the past year due to the illness and loss of Dr. William N. Wishard, its chairman, the Bureau of Publicity has spent a great deal of time and effort upon the following two subjects, a report on which may be of special interest to the profession:

1. The study of the League of Women Voters in regard to health and health insurance.
2. Criticisms published frequently in the press concerning the voluntary services rendered by physicians on selective service boards.

1. *Study of League of Women Voters.* In April the attention of the Bureau of Publicity was called to the "study kits" prepared by the League of Women Voters and supplied at $1.00 each to its members who were interested in the League survey on health and health insurance. This survey is national in scope, and after an eighteen months' study the members of the League may determine whether or not they are in favor of socializing the practice of medicine and working for legislation toward that end. Realizing the importance of the League and the impetus that the movement to socialize medicine would gain if the League officially became an advocate, various members of the Bureau held conferences with League members and discussed the entire question with the wives of several physicians who are active in the League. The Bureau then obtained one of the study kits. An analysis of the material contained in the kit showed that the majority of the pamphlets had a strong bias for socialized medicine. In fact, only the two following pamphlets presented the viewpoint of the medical profession:

a. "The Health of Forty Million People," by R. G. Leland, M. D.
b. "Looking at Health Insurance Abroad," by J. George Crownhart.

The Bureau of Publicity then approved the publication of an editorial in The Journal which would bring the attention of the profession to this matter.

Under the direction of the Bureau, arrangements were made for Dr. A. M. Mitchell, president of the Indiana State Medical Association, and the chairman of the Bureau to appear before the Board of Trustees of the American Medical Association at the annual meeting in Cleveland and discuss the problem with them. As a result of this appearance before the Board of Trustees, a pamphlet has been prepared by the American Medical Association entitled, "Organized Payments for Medical Services," a revision of a pamphlet originally published by the American Medical Association several years ago for use of those who are making the study.

The Bureau feels that this is definitely a work in which every member of the Woman's Auxiliary to the Indiana State Medical Association should inform herself and be most interested. It hopes that the physicians' wives who are members of the League of Women Voters will inform themselves in regard to this subject so they may be prepared to take part in discussions concerning socialized medicine which will be carried on during the coming months in the various local League groups.

2. *Selective service examinations.* Due to the fact that numerous selectees were passed by the local selective service boards and then were rejected by the induction boards, a group of county medical society secretaries which met in Indianapolis in May, along with the officers of the state medical association, recommended that a statement be prepared for the press which would explain why such differences of opinion between the Army doctors and the civilian doctors exist. Dr. R. L. Hane, chairman of the Committee on Secretaries' Conference, prepared an editorial upon this subject, entitled "Selective Service Examinations," which appeared in the June issue of The Journal of the Indiana State Medical Association. A copy of this editorial was sent to the editors of the Indiana dailies and weeklies, along with the following letter from the Bureau of Publicity:

> "Enclosed is a statement which appears in the June issue of The Journal of the Indiana State Medical Association concerning examinations of selectees for military service. This

statement is made as it was thought well to clarify in the public mind the following two facts:

(1) "Because a man happens to be turned down for military service does not necessarily mean that he is not suited to carry on and do a good job in civilian life.

(2) "Because some men are passed by the physicians at the selective service examining boards and are then turned down by the induction board does not mean that the physicians at the selective service boards, who are serving without compensation, have not done an acceptable job. Army doctors at the induction board in many instances judge the qualifications of a man upon different standards than those used to guide civilian examiners."

In addition to this letter a statement was issued by Captain Glen Ward Lee, director, Medical Division, Indiana Selective Service System, which helped clarify the matter as far as the public is concerned.

III. Duties of the Bureau

At the first meeting of the Bureau of Publicity following the death of Dr. Wishard, the Bureau drew up the following short outline of the Bureau's duties:

(1) Releases to newspapers.

(2) Speakers before medical societies and medical lay organizations upon request.

(3) General field of action—
   a. Indiana Plan
   b. Historical work
   c. Preparation of pamphlets on contagious diseases
   d. Advisory committee to Woman's Auxiliary
   e. Opinions upon relationships between public and the profession
   f. Informal statements in regard to ethical problems that arise between members of the profession.

IV. Newspaper Publicity

Articles released by the bureau during the year follow:

Annual Session of Indiana State Medical Association at French Lick, Indiana, (9 releases)
Secretaries' Conference
Industrial Health
Survey on Medical Care of Civilians During the Emergency
Indiana Medical Profession and Defense
May Day—Child Health Day 1941
Spring Exercise
Swimming With Safety
Safety in Fishing
Statement in regard to Selective Service Examinations.

V. Medical Meetings

Speaking engagements filled during the year before lay and medical groups follow:

1940

December 18—Johnson County Medical Society, and Franklin Rotary Club, Franklin

1941

February 19—Parke-Vermillion County Medical Society, Clinton
March 11—Fayette-Franklin County Medical Society, Connersville
March 19—Parke-Vermillion County Medical Society, Clinton
April 1—Twelfth District Medical Society, Ft. Wayne
April 3—Fountain-Warren County Medical Society, Kingman
April 8—Woman's Auxiliary to the Tippecanoe County Medical Society, Lafayette
April 16—Parke-Vermillion County Medical Society, Clinton
April 18—Cass County Medical Society, Logansport
May 13—Vigo County Medical Society, Terre Haute
May 15—Hamilton County Medical Society, Noblesville.

VI. Financial Statement of the Bureau

The expenditures of the bureau from September 1, 1940, to August 1, 1941, follow:

Clippings	$ 91.57
Postage	52.79
Stationery and mimeograph supplies	26.95
Miscellaneous	10.03
Total expense (11 months)	$181.34

H. G. HAMER, M. D., *Chairman*
F. M. GASTINEAU, M. D.
FREDERIC W. TAYLOR, M. D.

COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

(There was no business transacted through this committee during the year and, therefore, the committee has no report.)

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

House of Delegates,
Indiana State Medical Association

Gentlemen:

The committee held one meeting during the year which was just preceding the midwinter meeting of the Council. At this time the committee asked the council for funds for the employment of a part-time worker for continuing education in the state. It is the feeling of the members of the council that this request should not be granted because of the uncertainty of the times and the disturbance to the medical practice in general by reason of the Defense program.

The chairman of your committee attended the meeting of the Council on Medical Education and Hospitals at Chicago, February 17 and 18, 1941. This meeting was uncommonly well attended and the level and tempo of discussion were set by the opening address of the chairman of the Council, Dr. Wilbur, on "Some War Aspects of Medicine." The next four papers on the program were, "Universities and the People's Health," "The Challenge to Hospitals and the Changing Attitude Toward Them," "Adjustment of Medical Education to Social Demand," and "The Physician in the Selective Service." These titles will give one an idea of the changing trends in medical thinking as well as the changing trends in the attitude of the people toward ourselves and our educational program.

On the day preceding the meeting of the Council on Medical Education and Hospitals, an entire day was spent in discussion of economic and educational problems in medicine especially with reference to graduate medicine. It may be of interest to the members of the Indiana State Medical Association to know that the Illinois State Medical Association is spending $1,000 a month for their program of continuing education in the state and that they have a full-time woman executive in charge of this work, together with several full-time assistants in her office. Iowa has a full-time woman executive in charge of continuing education in the state and this department is spending approximately $6,000 a year over and above the funds that are obtained from the various federal agencies. By comparison, the budget for continuing education in Indiana this year is $200 for the year.

During these three days of conference concerning the field of medical economics and the fields of medical education, both graduate and undergraduate, lengthy discussions as to the problems incurred by the Preparedness program, the disruption of hospital service because of the expected lack of interns and residencies, and the discussions concerning the absolute necessity for maintaining high standards of training for the oncoming medical men and women, one could indeed find much food for thought. It is certainly very necessary that the Indiana State Medical Association give more thought to the business of continuing education and also a great deal more thought to the changes that are so rapidly occurring in connection with all of our socio-economic relationships, if we are going to stay in line with other medical organizations.

The committee was represented at a meeting of the Associated State Post Graduate Committees held in Cleveland on Wednesday, June 1, in connection with the American Medical Association, by Dr. Howard Mettel of Indianapolis. A great deal of discussion took place at this meeting concerning the different types of continuing education. One of the interesting reports was that of Dr. James B. Bruce of Michigan who outlined the various types of graduate work conducted in Michigan such as a four day course for four years followed by a certificate, the one and two day assemblies, and the four day assembly held at the University. It was his feeling that the one day meeting held with the committee and the District Medical Association proved to be only a social gathering and was not worthwhile.

At this meeting a resolution was adopted requesting each state to pay a stipend to further the program of the Associated State Post Graduate Committees. This resolution was to have been placed before the House of Delegates but I believe was not acted upon at this year's meeting of the House. All of the states were represented at this meeting of the Associated State Post Graduate Committees.

There seems to be very little interest shown by the physicians of Indiana in the various intramural courses that are being put on by the University, such as the courses offered in obstetrics, pediatrics, cardiology, etc. One of the recent courses offered at the University in obstetrics had an enrollment of six physicians and on the day when the course was to begin only two of them reported. This is extremely discouraging to all of the men connected with the development of these courses to say nothing of the actual monetary loss entailed. Dr. Huber of the University has planned two weeks' intramural courses in obstetrics to be given October 13 to 25, 1941; January 12 to 24, 1942; April 13 to 25, 1942; and July 13 to 25, 1942. Also the Department of Pediatrics of the University will give an afternoon and evening course on the general subject of pediatrics on each Wednesday. These courses are well organized and certainly should be worthwhile. It would seem that most any physician could spend one day a week in such a course without much loss to his practice.

In closing the report of this committee to the House of Delegates last year the committee stated, "We are in the midst of a vast program of preparedness for national defense. Much needs to be done to coordinate medical and hospital activities. Medical teaching must continue so as to assure an adequate supply of physicians, nurses, technicians and public health workers. Our hospitals and public health departments must be planning for expansion and extraordinary burden of work to the end that any emergency may be met. Your committee asks the utmost of cooperation in this activity from every doctor in the state."

It has been argued by many and it seems to be the prevailing thinking of the Council that in these times of stress and uncertainty, the development of continuing education and planning for expansion of programs should be curtailed. It would seem to us that just the reverse is true and that at this time there is more than ever need for some form of continuing education for the general practitioner throughout the state who is going to have an infinitely heavier load of work and responsibility as the tempo of the Defense program increases. It would seem vitally necessary that provision be made

to the end that the Indiana State Medical Association may have accurate knowledge of the available hospital facilities in this emergency period, and that hospitalization, training of the necessary personnel such as nurses, nursing aids and technicians, as well as the distribution of interns, residents, etc., be integrated. Whether this should be the function of the Committee on Medical Education and Hospitals or a function of the Defense set-up is, of course, for the House of Delegates to decide.

HERMAN M. BAKER, M.D., *Chairman*
ROBERT M. MOORE, M.D.
M. S. DAVIS, M.D.
O. O. ALEXANDER, M.D.
C. J. CLARK, M.D.
RALPH W. ELSTON, M.D.

THE JOURNAL

House of Delegates,
Indiana State Medical Association

Gentlemen:

The editorial management of THE JOURNAL presents a report of its stewardship for the ninth year.

We believe that THE JOURNAL has made progress during the past year: we have printed more pages, both reading and advertising, and from comments within and without the state we are led to believe that the scientific material presented during the past year shows a marked improvement. Without any degree of self-laudation, we believe that THE JOURNAL is comparable with any similar publication in the country.

During 1941 we did not continue the "topic of the month" feature; rather, we stressed the "Twelve Great Killers" in Indiana. There also was found time to prepare some special numbers, notably those having to do with "Conservation of Vision" and "Industrial Medicine." Each of these issues met with general favor and the latter was deemed to be an especially timely and informative number.

The Editorial Board has been in complete accord as to editorial policy and has functioned in a most cooperative manner.

At this time, there have been no special plans made for 1942, but we are "all set" to keep abreast of medical and economic progress.

Again do we compliment our printer for service rendered and for the presentation of a magazine that is attractive in appearance and which bears the stamp of superior craftsmanship.

It is a pleasure to acknowledge the active support of the entire official family during the past year, and also the contributions of those who were good enough to supply material for THE JOURNAL'S pages.

E. M. SHANKLIN, M.D., *Editor*

COMMITTEE ON NECROLOGY AND HISTORY

House of Delegates,
Indiana State Medical Association

Gentlemen:

NECROLOGY

As is the custom now, there is published each year in the February number of THE JOURNAL a complete list of the physicians who have died during the previous year. This listing gives the physician's name, age, date of death, place of residence, cause of death, and whether or not he was a member of the State Association.

In 1940 there were eighty-eight deaths, which is seven less than in 1939. Some form of cardiac disease was mentioned in the death certificates of fifty-three of these; thus, once more heart disease is the great killer and once again the percentage of deaths from this cause increases. Other degenerative diseases are listed twenty-three times. The average age at death was sixty-three years and six months, which is about two years above the general average for the country. Once again lobar pneumonia is conspicuous by its absence from the list of causes. Auto wrecks accounted for two and suicides for five.

HISTORY

Work along this line progresses very slowly. It was hoped that the Indiana Association of the History of Medicine might be able to get this program started, but so far it has not been possible to accomplish very much. This Society held one meeting which was devoted entirely to the question of a Medical History of Indiana. After considerable discussion, it was determined that a start would be made by devoting the program of each meeting in 1941 to some topic of medical history in Indiana. In this way some very valuable material could be collected and preserved.

This committee has been able to accomplish little this year other than to collect the current history for the year. It would like to suggest that some one in each county, preferably the secretary, list and send to the chairman of this committee the names of all physicians who have entered the Army or Navy Service so that records may be kept available if and when needed.

JAMES B. MAPLE, M. D., *Chairman*
W. D. INLOW, M. D.
C. N. COMBS, M. D.

COMMITTEE ON SECRETARIES' CONFERENCE

House of Delegates,
Indiana State Medical Association

Gentlemen:

The annual secretaries' conference of the Indiana State Medical Association was held at the Indian-

apolis Athletic Club, January nineteenth, with a total of 161 county society secretaries, association officials, and interested members in attendance.

The afternoon program was arranged as a series of discussions on important medico-economic subjects. The enthusiastic participation of the audience in the discussions marked this meeting as being most successful.

"Administrative Problems in the Care of the Indigent Sick" was the opening topic, led by Leo X. Smith, legal advisor to the Indiana Township Trustees' Association, and Dr. J. S. Leffel, chairman of the Medical Relief Committee of the Indiana State Medical Association.

Dr. L. W. Spolyar, chief of the Bureau of Health in Industry, Indiana State Board of Health, spoke upon a topic of current interest, "Health in Industry." The discussion was led by Dr. E. S. Jones of Hammond.

Captain Glen Ward Lee, chief of the Medical Division, Indiana Selective Service, in his talk on "The Medical Defense Program in Indiana" gave much information relative to the problems of selective service examinations. Dr. C. R. Bird led a most active discussion of this topic.

Dr. Creighton Barker, executive secretary of the Connecticut State Medical Society, humorously enlightened us on his views in a talk entitled "Everything Counts."

Dr. R. A. Fargher of LaPorte county reported on a study of "Medical Society Attendance."

Officials of the Indiana State Medical Association reviewed the current problems of organized medicine. Dr. R. L. Hane of Fort Wayne was elected chairman for 1941.

The after dinner speaker was Lieutenant Colonel William C. Munly of the Surgeon General's office in Washington, who spoke in most thorough fashion of the "Participation of the Medical Department of the Army in the 1940-41 Military Training Program."

County society secretaries were the guests of the Indiana University Medical Center at a dinner, April 28, 1941, at the Riley Hospital. An informal discussion of current problems of the county societies followed the meeting.

Your committee on Secretaries' Conference wishes to thank the many interested officers, committee chairmen and members who have contributed to the success of our program.

R. L. Hane, M.D., *Chairman*
S. L. Bryan, M.D.
C. G. Kern, M.D.
W. M. Dugan, M.D.
M. J. Thornton, M.D.
A. M. Mitchell, M.D.

M-DAY AND VETERANS' AFFAIRS COMMITTEE

House of Delegates.
Indiana State Medical Association

Gentlemen:

Your committee on Medical Preparedness has had a busy year.

The campaign in connection with the A. M. A. questionnaire entailed considerable time, patience and expense. It was concluded in this state with a final 98% completed response. The profession of Indiana is to be congratulated upon this magnificent record, which not only shows the attitude toward national precariousness, but places Indiana in the forefront in this particular effort.

Some 250 physicians have responded to the call; others are being inducted every day. It is apparent that by the time another twelve months will have come and gone, the need for physicians will be so great as to create an acute, and perhaps alarming, shortage of physicians in Indiana. Needs of the armed forces, industry, public health, Red Cross, and the call from abroad, all will contribute to the pinch which is even now beginning to be felt by local communities.

Services of the several hundred physicians now so efficiently serving on the various selective service, appeal, and advisory boards without pay will be continued.

A number of questions have arisen calling for a solution by your committee. Upon one occasion your committee rendered an important service in appearing before a local draft board in the interest of medical student deferment. The outcome was altogether happy. In the face of overt antagonism toward deferments in general, and especially blanket deferments, your committee pointed out to the board that it was not interested in the case of any one individual medical student but it was definitely interested in the establishment of a uniform policy concerning the deferment of medical students here in Indiana. Your committee stated that the War Department, Selective Service System, and the Surgeon General's office had each expressed a desire that medical students should be deferred because of an ever increasing shortage of physicians which will become more acute if the supply is cut off at its only source.

We think that, after the passing of the present emergency, in the years to follow a great need for physicians will exist. This need will not only be in our own country, but conditions that follow in the wake of wars in other countries will create a need that can be met only by the United States as to personnel, food, clothing, money, and public health services.

The committee desires to express its thanks to Colonel Hitchcock and Captain Lee for their ever

ready and cheerful response to any request for help and information.

C. R. BIRD, M. D. *Chairman*
C. C. CRAMPTON, M. D.
W. M. MILEY, M. D.
M. L. CURTNER, M. D.
A. G. CHITTICK, M. D.
CARLETON B. MCCULLOCH, M. D.

PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE

The previous report of this committee for the year 1940, referred in parts to a Special Reference Committee on Health Insurance and to the Reference Committee on Public Relations, received extremely careful consideration from these committees. The essential action of the House of Delegates, in disposing of the material presented for their consideration, was the adoption of the recommendation that the Council and other interested committees act with the State Hospital Association and the Governor's Commission in the formulation of any hospitalization or medical care plans. The House "specifically re-indorsed the principle of cash indemnity medical insurance" and recommended "that medical service plans be encouraged, on an experimental basis, in the localities where the sentiment of the profession and the public warrants it." The House authorized the Council to take such action, as might be deemed necessary, to advance these purposes and initiate such legislation as might be needed.

Apparently the judgment of the Council was against the adoption of any legislative program at the last session of the legislature because no measures were presented by the state association to legalize group hospitalization or medical care plans.

In one county of the state, however, elaborate plans were drawn up for participation with a legalized fraternal insurance company, selling group hospitalization, in handling administrative matters in connection with a medical service plan. This plan, fashioned essentially after the Michigan Medical Service Plan, was approved by the County Society Council, but on presentation to the Medical Society failed of approval and for the time being the matter was dropped. A branch of the Society decided to experiment with the plan, on their own. Up to the present time a working provision was established that as soon as 50% of a group, limited chiefly to oil workers, were signed up for hospitalization benefits, then they could be approached on the medical care plan. So far 50% have not been signed up and so the plan is not operating.

Many things may be said to have relegated to the background the adoption of medical care plans, whether on a service or indemnity basis. The immense defense program, with all its attendant activities on the part of the American Medical Association and our own State Association; the evident relaxation of politicians in striving for compulsory medical care plans; the waning of pressure from the social workers, except for their belated efforts in endeavoring to secure the cooperation of the League of Women Voters, which seems to have bogged down; the apparent apathy of the people in general to subscribe to existing plans; the increased employment attendant on the defense program; the definite lack of actuarial figures on which to base adequate plans, although this may now be said to show a clearing in the mist as the American Medical Association gathers its figures on this most important phase; the paradoxical situation existing in those localities where plans have been instituted, under pressure, only to find that, once established, the plan then has to be sold to the people; the skepticism of the profession generally, in subscribing to cooperation in any plan whose fundamental basis and outcome is not definitely apparent; and, finally, the evidence, so far presented in experimental plans, that they are not on a sound basis in presenting the people with what they desire and at the same time providing an adequate method of compensation for the profession.

In spite of the cessation of active propaganda for this type of medical care coverage, it must be pointed out that there remain some twenty states where medical care plans are actively in force, and with some success in California, Western New York, Michigan, and Dallas County in Texas, and that many others continue in their state-wide and local efforts to establish really workable plans. While certain states, noticeably Minnesota, have frankly turned down the idea as an unnecessary and complicating disorganizer of medical practice, one must continue to follow the experience of Michigan, with its state-wide medical service plan, and accept their success to date as worthy of continued trial and investigation. While Michigan lost its large subscriber in the Ford plant, because of difficulties in providing a plan flexible enough to cover all plants throughout the country, it, nevertheless, regained more than it lost in the participation of the Chrysler organization and many others. However, this fact again emphasizes the necessity for the formulation of plans whose benefits are national and interstate in character.

Moreover, it becomes increasingly apparent that group hospitalization plans are meeting with continued success, both from employers and employees. In this connection it also becomes apparent that where these plans are coupled with, or provided independently with medical care, in so far as that care is rendered in a hospital or

covers surgical risks, they are meeting with increasing acceptability.

This about sums up the situation regarding health insurance, without delving into a morass of figures, which still leave you in confusion. One can be sure of one thing, that all of the propaganda for reforms, medical or otherwise, have arisen usually after, and as a result of "depression" in economic states. It might be pointed out that a great lesson could be learned from the past few years, in that preparations should be made now, by the medical profession, to devise plans to handle our problems when the defense program no longer proves a stop-gap for the socialistically minded, and before the "veterans" of the present conflict present additional problems.

Your Committee has had no meetings during the past year, since, under existing circumstances, it was apparent that no recommendations could be made, other than continued observation of the operating plans throughout the country.

N. K. Forster, M.D., *Chairman*
H. O. Bruggeman, M.D.
Paul Yunker, M.D.
A. C. Yoder, M.D.
Joseph C. Silvers, M.D.
M. V. Kahler, M.D.

COMMITTEE ON STUDY OF HIGH SCHOOL ATHLETICS

House of Delegates,
Indiana State Medical Association

Gentlemen:

Since 1933 this Committee has been striving for the best possible medical examinations of high school boys participating in competitive athletics. In this effort we have had the finest kind of cooperation from the officials of the Indiana High School Athletic Association.

The Committee on Study of High School Athletics of the Indiana State Medical Association believes that it would be helpful to have a representative of the Indiana High School Athletic Association on the program at the annual meeting of the Indiana State Medical Association, in order to bring about a closer understanding of the problems involved. This would no doubt enable us to understand to better advantage the various conditions which have to be met and should enable us to handle our share of the problems more effectively.

W. D. Little, M.D., *Chairman*
O. H. Bakemeier, M.D.
H. C. Wadsworth, M.D.
G. A. Thomas, M.D.
D. W. Paris, M.D.
J. E. McMeel, M.D.
Neal Baxter, M.D.
E. J. Hunt, M.D.

COMMITTEE ON MENTAL HEALTH

House of Delegates,
Indiana State Medical Association

Gentlemen:

While a number of minor problems have been brought to the attention of this Committee during the past year, it has been deemed necessary to hold only one formal meeting. The object of this meeting was to study and investigate certain statements made by Dr. Samuel Hamilton before the Indiana Society for Mental Hygiene. These statements would lead to the conclusion that there was lack of proper management and care of patients in some of our State Insane Hospitals. This matter was referred to the Director of the Department of Public Welfare, requesting that this Committee be advised on what grounds Dr. Hamilton made these statements and what measures had been taken to correct such defects.

A letter received from Dr. Hamilton merely stated that his "talk was based on a report of survey of the State Hospitals of Indiana submitted to Governor Townsend last November." The following is quoted from a letter from Mr. Thurman A. Gottschalk, Director, Department of Public Welfare: "In 1939 Dr. Hamilton came into Indiana to make a study of our mental hospitals at the request of the Governor. His report was turned over to the Governor and we have a copy of it in our files. I am not sure that the statement Dr. Hamilton made at this meeting was on the basis of this report. I did not hear Dr. Hamilton's statement, but as I recall there isn't anything in this report that is particularly critical. He did make several recommendations, which unfortunately the institutions seemingly are not able to carry out due to the lack of funds."

This Committee realizes there are many minor defects in our state institutions which, as Mr. Gottschalk points out, are the result of lack of public funds rather than error or mismanagement on the part of institutional heads.

This Committee has every confidence in the management of our State Hospitals, appreciating the fact that they are greatly handicapped by being over-crowded and under-staffed.

The present National Defense Program is of considerable concern to this Committee. The importance of competent neuropsychiatric examiners at induction centers is at once apparent. It is the understanding that there is a shortage of properly trained examiners, not only in Indiana but over the whole United States. Three members of the Indianapolis neuropsychiatric group are now in the military service, one is doing neuropsychiatric examinations on a civilian status at the local induction center, one institutional superintendent and other staff officers from the State Hospitals are likewise doing military duty.

Psychiatric clinics throughout the state, which were established two years ago, have continued to

function satisfactorily. During the past year about two thousand cases have been seen.

The state hospitals and the psychopathic ward at the Indianapolis City Hospital are still over-crowded and so far as can be learned no general or county hospitals have added psychiatric facilities to their institutions. With the present Defense Program and unsettled state of affairs there is every reason to believe that there will be an increase in psychiatric cases requiring state hospitalization and it seems wise that this need should be anticipated and provided for accordingly.

During the past year Dr. Richard Shillinger, superintendent of the Eastern State Hospital, Richmond, Indiana, died and was succeeded by Dr. Paul S. Johnson, a former resident of that institution. Dr. L. H. Gilman, associate professor of neuropsychiatry, Indiana University School of Medicine, died last winter. This Committee takes this occasion to express profound regret at the loss of these two members of the neuropsychiatric group. Dr. Joseph Skobba, superintendent of the Butlerville institution for the feeble-minded, is in the military service and has been succeeded by Mr. Bosse. Dr. C. Herbert Cronich, head of the Child Guidance Clinic at the Riley Hospital, resigned and was succeeded by Dr. William Rossman.

With the unusual loss by death and otherwise in the neuropsychiatric group, naturally a heavy burden is placed on those remaining. However, we do not believe there has been or will be in the coming year any neglect in the teaching of neuropsychiatry or the care of indigent neuropsychiatric patients.

LARUE D. CARTER, M. D., *Chairman*
M. A. DEARMOND, M. D.
L. P. HARSHMAN, M. D.
J. S. SKOBBA, M. D.
HARRY C. BUHRMESTER, M. D.
JOHN H. HARE, M. D.
MAX BAHR, M. D.
C. L. WILLIAMS, M. D.
E. R. SMITH, M. D.
PAUL JOHNSON, M. D.

COMMITTEE ON PREVENTION OF TRAFFIC ACCIDENTS

(There was no business transacted through this committee during the year and, therefore, the committee has no report.)

SUB-COMMITTEE TO STUDY MATERNAL MORBIDITY AND MORTALITY RATES FOR INDIANA

House of Delegates,
Indiana State Medical Association

Gentlemen:

The Sub-committee to Study Maternal Morbidity and Mortality Rates for Indiana begs to submit the following report:

1. The statistics of the Indiana State Board of Health again reveal that the spectres ignorance, poverty, carelessness, indifference and disease are still the great creators of maternal and infant mortality.

2. Sepsis, abortion and hemorrhage are still the leading causes of maternal death, but all have been reduced over 50% since this committee started its activities.

3. Toxemia of late pregnancy remains about the same in its frequency. Most fatal cases reveal inadequate prenatal care.

4. Cesarean section now holds the fourth place as a cause of maternal death in Indiana. More careful attention to prognosis of labor during the last month of pregnancy, and earlier intensive treatment of toxemia will help to correct this medical blight.

5. The effect of migration of populations and creation of congestion and poor condition of living resulting from the National Defense Program is not yet reflected by mortality statistics, but should be observed with concern by the medical profession practicing in such areas.

6. The problem of maternal and infant mortality, we again emphasize, is the responsibility of the medical profession collectively rather than individually.

7. The efforts of county medical societies are still the most effective means of combating above factors through enlightenment of their public, assistance of county executive agencies, and personal sacrifice in the attentions of obstetric complications and prognosis of labor.

8. The service of the public health nurse, and hospital facilities which have been established and made more accessible, are factors in reducing maternal and infant mortality and the medical profession has created the sentiment which made these possible.

9. The problems of the urban and rural communities are not parallel except in the factor of disease. The Indiana State Board of Health is familiar with the problems of individual counties and close cooperation between this body and the county societies will help to reduce maternal and infant mortality. The efforts of organized medicine in Indiana have been successful in reducing maternal mortality 50 plus per cent, same being 2.5 per 1,000 live births—probably the lowest number obtained in any state in the U. S. registration area for 1940. Infant mortality was reduced 5½ per cent, this being 41.6 per 1,000 live births.

10. The excellent cooperation between the county commissioners and the medical profession has been a factor in reducing maternal and infant mor-

tality in some counties and such relations should be fostered by all county societies.

11. We again recommend:
    a. The creation of a Committee for Maternal and Infant Care in every county medical society.
    b. An evening devoted to the subject in their county program at least once a year.
    c. That they act as a contact between the public, the county welfare administrators and their medical society.

12. The original objectives of the Sub-committee, viz.: to study maternal and infant morbidity and mortality, and to recommend means of correcting adverse influences, have been assumed in part by the Indiana State Board of Health and in part by the Advisory Committee to the Bureau of Maternal and Child Health of the Indiana State Medical Association, hence it seems superfluous to continue the existence of the Sub-committee to Study Maternal Morbidity and Mortality Rates for Indiana.

H. F. Beckman, M.D., *Chairman*
H. R. Vandivier, M.D.
M. S. Brown, M.D.
C. P. Huber, M. D.

LIAISON COMMITTEE OF THE DIVISION OF SERVICES FOR CRIPPLED CHILDREN

House of Delegates,
Indiana State Medical Association

Gentlemen:

The Liaison Committee of the Indiana State Medical Association with the Division of Services for Crippled Children wishes to report that primarily the past general plan of services has been continued.

The three clinic centers established in Indianapolis, Fort Wayne, and South Bend have continued to function as in previous years. Details as to admissions and medical care programs at these centers would be gladly furnished upon request to the State Department of Public Welfare.

The State Department has continued to offer follow-up services, with orthopedic nurses and physical therapists, of children having been admitted to the clinical centers and placed with the Division of Services for Crippled Children for care. This service has been extremely valuable to the home care of these patients and has lowered the cost of hospitalization to the county departments of public welfare. A complete social service system in handling and placement of these children has functioned throughout the year.

During the fall of the year of 1940, the State Department offered services to assist physicians in the control of an epidemic of acute poliomyelitis which occurred, for the most part, in the northern part of the state. Services made available were consultant services of qualified pediatricians and orthopedists. In addition, services of orthopedic nurses and physical therapists were made available to both the acute and convalescent cases of poliomyelitis. This service was very much appreciated by the physicians who participated in the program. During the coming year, preparations have already been made for the offering of similar services. In addition, the State Department, through co-operation of the National Foundation for Control of Infantile Paralysis, has made available to each county, orthopedic appliances to assist in the early care of poliomyelitis cases. The State Department has issued to all physicians a brochure which outlines the services available through the Division of Services for Crippled Children of the State Department of Public Welfare.

During the past year the Cerebral Palsy Clinic, which is located at the Riley Hospital, has continued. This clinic is now recognized as the largest and most completely equipped clinic for the care of the spastic child that exists in the world. Early in the spring of 1941, a nation-wide conference was held in Indianapolis under the direction of the clinicians and workers who are in charge of the Cerebral Palsy Project of the Division of Services for Crippled Children of the Indiana State Department of Public Welfare. This clinic was attended by physicians, nurses, physiotherapists, and social workers from 'most every state in the Union. Two days were spent on reviewing the program of the Clinic and demonstrating therapeutic methods used in the Indiana Cerebral Palsy Clinic. During the coming year, the clinical staff is to be strengthened by the addition of a full time neurologist who will be in active direction of the Clinic.

The Indiana Division of Services for Crippled Children, during the absence of Dr. Oliver Greer, Director, who is now serving in the U.S. National Forces, has been under the guidance of Dr. Howard B. Mettel. Dr. Mettel is serving only until an acting director can be procured or until Dr. Greer is returned to his regular post of duty. The Committee has, indeed, been appreciative of the efforts and guidance of Dr. Mettel—which additional work on the part of Dr. Mettel has been voluntary and without extra remuneration over and above his salary as Director of the Department of Child Health and Maternal Welfare.

Throughout the year, the division has enjoyed the full cooperation of the members of the Indiana State Medical Association. The division heads have met frequently with the Advisory Committee for the Indiana State Medical Association and have been guided in their activities by the advice from the Indiana State Medical Association.

During the coming year no additional new activities have been planned; however, it is the sincere hope of the department that it will be able to maintain its efficient personnel and in return continue

to improve the quality of the already established services.

I. C. BARCLAY, M.D., *Chairman*
WAYNE R. GLOCK, M.D.
J. H. WEINSTEIN, M.D.
JOHN H. GREEN, M.D.
GEORGE COOK, M.D.
L. A. ENSMINGER, M.D.
R. L. SENSENICH, M.D.
L. L. SHULER, M.D.
G. A. COLLETT, M.D.

AUDITING COMMITTEE

House of Delegates,
Indiana State Medical Association

Gentlemen:

Your Committee met at the Indiana National Bank on July 24, 1941, at which time the securities held by the Association, in the general fund and the medical defense fund, were examined and found to be in order. (See list of these bonds in treasurer's report on page 483.)

Fort Wayne School Improvement bonds in the amount of $5,000 and an Indianapolis City Hospital bond in the amount of $1,000 ($3,000 in each the general fund and the medical defense fund) matured December 31, 1940. This money was reinvested in United States Treasury bonds, $3,000 being credited to the general fund and $3,000 to the medical defense fund.

Your Committee also examined the cash balances in The Indiana National Bank, The American National Bank, The Fletcher Trust Company, and The Bankers Trust Company, as shown by the bank statements. These accounts consist of the general headquarters office fund, the medical defense fund, THE JOURNAL fund, and the petty cash fund respectively.

O. B. NORMAN, M. D., *Chairman*
GEORGE WAGONER, M. D.
IRVIN HUCKLEBERRY, M. D.

REPORT OF COMMITTEE ON CONTROL OF CANCER

House of Delegates,
Indiana State Medical Association

Gentlemen:

The Cancer Control Committee, appointed by the president of the Indiana State Medical Association, had two meetings in January, one with full attendance. It voted to continue the work as recommended by the previous committee.

The committee approved the appointment of Dr. Stayton and Dr. Padgett, the two Indianapolis members on the state committee, as members of the Executive Committee of the Indiana division of the Women's Field Army. The other members of the Executive Committee of the Women's Field Army for 1941 are Dr. Don D. Bowers of Indianapolis, Dr. John W. Ferree of the State Board of Health, and Dr. Frank Forry of the Indiana University Medical Center. At the request of the Women's Field Army, a State Advisory Committee was chosen. The selection of the members of this committee was based upon their geographic location and their interest in cancer work. The membership of the advisory committee is as follows: Henry R. Alburger, M.D., W. D. Gatch, M.D., J. William Hofmann, M.D., Edgar F. Kiser, M.D., Charles W. Myers, M.D., Cleon A. Nafe, M.D., Thurman B. Rice, M.D., and Karl R. Ruddell, M.D., all of Indianapolis; M. A. Austin, M.D., Anderson; A. R. Chambers, M.D., Fort Wayne; Stanley A. Clark, M.D., South Bend; George R. Dillinger, M.D., French Lick; D. C. McClelland, M.D., Lafayette; A. M. Mitchell, M.D., Terre Haute; R. G. Moore, M.D., Vincennes; William C. Moore, M.D., Muncie; L. H. Osterman, M.D., Seymour; W. C. Reed, M.D., Bloomington; James S. Rich, M.D., Evansville; E. V. Wiseman, M.D., Greencastle; and G. H. Wisener, M.D., Richmond.

The Women's Field Army held a regional conference in Indianapolis on February 3 and 4, 1941. This meeting was attended by representatives of the medical profession and Women's Field Army from Ohio, West Virginia, Michigan, and Indiana. Dr. C. C. Little, managing director for the American Society for the Control of Cancer, and Mrs. Marjorie Illig, national commander of the Women's Field Army, were present for the various sessions. At the Assembly dinner on February 3, Dr. A. M. Mitchell, president of the Indiana State Medical Association, acted as toastmaster. The program consisted of an address of welcome by the governor, Honorable Henry F. Schricker; an address, "Encouraging Aspects of Cancer Control," by Dr. Frank E. Adair, attending surgeon of Memorial Hospital, New York; and an address "American Women Fight Cancer," by Dr. W. W. Bauer, director, Bureau of Health Education, American Medical Association. This regional conference with its enthusiasm and representative attendance is a good indication of the progress made and the seriousness with which the Women's Field Army has undertaken its work. The chairman of the committee reported these impressions to the mid-winter meeting of the Council of the State Association and urged whole-hearted cooperation by the entire membership in order properly to guide the activities of this potentially powerful lay group.

The campaign for funds by the Women's Field Army was conducted in April and resulted in a grand total of $10,124.96. The following counties exceeded their quota of $1.00 for each 100 persons in the amount shown: Madison, $330.00; Clinton, $149.25; Tippecanoe, $23.55; Hendricks, $21.81; Blackford, $12.67; and Morgan, $5.75. Other counties which deserve "honorable mention" are Grant, Wabash, Howard, Jackson, Shelby, John-

son and Marion. The following counties did not complete a Women's Field Army Organization in 1941:

First District: Gibson, Perry, Posey, Vanderburgh, and Warrick.

Second District: Daviess, Greene, Knox, and Martin.

Third District: Lawrence, Scott, and Washington.

Fourth District: Brown, Dearborn, Jennings, Jefferson, Ripley, and Switzerland.

Fifth District: Clay.

Sixth District: Franklin, Henry, Union, and Wayne.

Seventh District: 100% organized.

Eighth District: Delaware and Jay.

Ninth District: Benton, Fountain, Hamilton, Tipton, and Warren.

Tenth District: Jasper and Newton.

Eleventh District: 100% organized.

Twelfth District: Adams, Noble, Wells, and Whitley.

Thirteenth District: Kosciusko, St. Joseph, and Starke.

A total of 225,000 pieces of literature were distributed to the public. The wax models were exhibited at the Indiana State Fair and nine County Fairs. The motion picture, "Choose to Live," was shown eight times and the strip film shown fifteen times. Thirty radio addresses were made. There is a record of sixty talks to lay groups by physicians. Dr. W. W. Bauer of the American Medical Association spoke to more than 2,000 persons at three meetings held in one day at Bloomington. This was arranged by the Monroe County Women's Field Army. Dr. Frank L. Rector of the American Society for Control of Cancer spoke to about 6,000 high school students in various parts of the state. The committee expresses appreciation for the help given by the president, Dr. Mitchell, the headquarters staff, the editor of the State Journal, The Indiana State Board of Health, the Executive Committee of the Women's Field Army, the district councilors, county secretaries, and to Mrs. Isaac Born, State Commander of the Women's Field Army and her able assistants.

The Cancer Committee's 1940 report to the house of delegates had the following recommendation deleted by the Reference Committee on Hygiene and Public Health at the state meeting:

2. The establishment of diagnostic cancer clinics in some of the larger cities in Indiana where such service is not available. These clinics to be with the consent and under the direction of the local County Medical Society officers and arranged in cooperation with the Women's Field Army.

This was done without conferring with any member of this committee. That action is branded as arbitrary, obstructive, and taken without full knowledge of all the facts. The chairman of that reference committee was invited to the meeting of the Cancer Control Committee in January this year but failed to appear.

The following suggestions are submitted:

1. The appointment of Cancer Control Committee in each County Medical Society to assume leadership and cooperate with the Women's Field Army.

2. The State Association's approval of diagnostic tumor clinics where local facilities (hospital, laboratory, and x-ray), are available. Such clinics to be with the consent of the local medical society and staffed by local doctors. The Women's Field Army to be a cooperating agency.

3. The adoption of the slogan "Health Defense is National Defense" and "Early Cancer is Curable."

Chester A. Stayton, M.D., *Chairman*
E. E. Padgett, M.D.
W. C. Reed, M.D.
V. E. Wiseman, M.D.
D. C. McClelland, M.D.
James S. Rich, M.D.

COMMITTEE ON VENEREAL DISEASE

(No report at this time.)

COMMITTEE ON INDUSTRIAL HEALTH

House of Delegates,
Indiana State Medical Association

Gentlemen:

This Committee's report last year outlined a program on Industrial Health in contemplation of a national emergency. In the short space of a year we have seen National Defense catapulted to the front, and today it is our most vital concern as a nation, and as individuals. In contrast to the first World War, the present war is a highly mechanized type, depending chiefly on airplanes, tanks and mechanized units for striking power, transportation and supplies and leaving actual manpower as a secondary factor. Reliable statistics show that it requires seventeen men on the production line to maintain each fully armed soldier on the firing line. Thus the key to rapid and adequate National Defense is *production.* Its success depends heavily upon the ability of our industrialists to devise production schedules, and the ability of the medical profession to keep each worker on the production line.

Considering these facts, the committee feels that the program as outlined and adopted last year at French Lick was most timely and we were highly repaid at the last Annual Congress on Industrial Health when the Indiana State Medical Association and this committee received recognition for being the first in the nation to adopt a definite Industrial Health Program. We recommend that this program be continued and that each section thereof be intensified, with ex-

pansion wherever indicated. (For program see THE JOURNAL, October, 1940, page 575.)

The adoption of the program was only the beginning of the work for this committee. To show the actual operation of the plan we shall list some of the more definite accomplishments:

1. Many of the larger industrial counties have created local committees on industrial health to facilitate the organization and coordination of this work in their localities. They have been of great value in assisting the A.M.A. Committee on Industrial Health. We recommend that such committees be appointed by each county society to fully carry out this phase of the plan.

2. An Industrial Health number was published by THE JOURNAL of the Indiana State Medical Association. This was the first state journal to publish such a number.

3. Industrial Medicine was given a prominent part in the program of the Annual State Postgraduate program with the presentation of the subjects of industrial dermatitis, silicosis and benzol poisoning, etc., by nationally known authorities.

4. Industrial health programs were carried out by many of the county societies at one or more meetings. This should be carried out by all societies.

5. Lectures on industrial medicine were given to junior and senior medical students.

6. More physicians are reporting cases of occupational diseases to the Bureau of Industrial Hygiene of the Indiana State Board of Health. As a result, dermatitis due to phenolic resins, cutting oils, solvents, and synthetic resins were brought under control. One epidemic of hydrogen sulphide poisoning was uncovered through this type of action.

7. Following the approval of the House of Delegates last year of our resolution to have two physicians included on the Industrial Board, the executive committee appointed Dr. Norman Beatty and Dr. C. J. Clark to study this problem.

Absenteeism is one of the most urgent problems in industry today, with 340,000,000 days lost per year due to illness. This is an average loss of 8 days during the calendar year for each man employed. Studies have shown that the time loss from illness is 15 times that lost through industrial accidents and occupational diseases combined. Full realization of this fact places an immense responsibility on the general practitioner when he treats the various non-occupational illnesses. The physician keeping a man on the job one hour longer or returning him to work one hour sooner in each case, would enable the nation to gain approximately 1,000,000 man hours of work each year. This can be the contribution of the general practitioner to the Defense Program.

The committee feels that the importance of absenteeism should receive special emphasis this year. The full realization of the importance of this factor should be impressed in the minds of the workmen themselves through education, posters, publicity, etc. Every physician should keep every man on the job every possible hour of every day, thus reducing time loss from non-occupational diseases. Full consideration of our original program can minimize the time loss due to occupational causes. A vast responsibility rests on the medical profession in general and we are working under the spotlights of many most critical groups. Let each man be himself responsible for his part in having done the job well.

C. V. ROZELLE, M.D., *Chairman*
ROY GEIDER, M.D.
V. E. HARMON, M.D.
M. B. CATLETT, M.D.
C. M. JONES, M.D.
J. C. BURKLE, M.D.
DON KELLY, M.D.

COMMITTEE TO STUDY CULTISTS AND IRREGULAR PRACTITIONERS

House of Delegates,
Indiana State Medical Association

Gentlemen:

This committee still believes the solution of the cultist problem will never be solved adequately in this state until we have an annual registration of all those engaged in the healing art.

ALFRED ELLISON, M.D., *Chairman*
HARRY HOWARD, M.D.
C. L. BOYD, M.D.
M. R. LOHMAN, M.D.
W. A. SHUCK, M.D.
W. F. KELLY, M.D.

COMMITTEE ON INDIANA INTER-PROFESSIONAL HEALTH COUNCIL

House of Delegates,
Indiana State Medical Association

Gentlemen:

The last annual report in the September 1940 JOURNAL dwelt largely with the dangers following the unrestricted sale of such medicines as headache tablets and sleeping tablets. This interest has broadened into a study of the poison problem as it affects everyone. This problem was also found to be of equal interest to manufacturing pharmacists, dentists, hospitals, farmers, veterinarians, and retailers. Unrestricted sale and use of barbiturates and the problem of regulation was our chief concern at the start of the study. The inclusion of poisons broadened the scope of our activity, since it affected not only drugs for human consumption but also such things as sheep dip, vegetable spray, veterinary medicines and kindred articles. For this reason, representatives of the Indiana Farm Bureau joined

with our group for the consideration of this problem. Realization that misuse of dangerous drugs and poisons was hard to regulate because of their very broad, and to a great extent commercial use, meant that any legislation which might be proposed must take into consideration the special needs of everyone interested. In the past, numerous efforts have been made to strengthen our laws covering the use and misuse of poisons and related dangerous drugs. Always some adversely affected interests succeed in blocking such legislation, even though they were themselves unable to suggest anything better.

Having therefore brought into this study representatives from every conceivable interested group, five committees who had been named early in 1940 to study different phases of this subject, were called for reports on January 12 of this year.

At this meeting, Mr. A. C. Fritz reviewed the provisions of a Special Agricultural Chemical bill and favored its acceptance with designated changes dealing chiefly with the protection of public health, repackaging, labeling and consideration to possible record regulations on sales of certain poisonous chemicals.

Mr. John W. Ferree reported for the sub-committee on barbiturates, of which Mr. Wheeler was chairman. The substance of this report was a recommendation that no legislation pertaining to such drugs be presented or supported until we find out how far and in what manner our State and Federal Food, Drug and Cosmetic Acts will cover barbiturates and their derivatives.

Mr. H. L. Gerding reported for the sub-committee investigating the use and sale of dangerous drugs. He recommended that any action regarding these drugs be deferred at this time, since recent rulings of the Food and Drug Administration already regulate the sale and labeling of a number of such drugs and probably will include others soon.

At the suggestion of Mr. C. E. Nelson, the Council took action against any proposal that would change the status or disturb the personnel of our state boards of registration.

A committee was appointed to study the relations of the Council to the National Defense Program as it pertains to Indiana.

It is possible that with the coming future sessions of the Legislature, the Council may continue its advisory character regarding all measures dealing with public health.

It is with a feeling of deep personal loss that I must report the untimely passing of Dean C. B. Jordan. Dean Jordan, by his energy and foresight, has been largely instrumental in bestowing upon the Council its vigorous attitude and crusading character. We wish to record here our debt to his vision and to his ability in the organization of this group.

It is to be hoped that the progress thus far accomplished in cementing a close bond of union between those interested in the health problems of public welfare will continue through the instrumentality of this Council.

F. S. Crockett, M.D., *Chairman*
L. H. Allen, M. D.

ANTI-TUBERCULOSIS COMMITTEE

House of Delegates,
Indiana State Medical Association

Gentlemen:

The Anti-Tuberculosis Committee has had three meetings in the past year, one of which was held at the annual session. A breakfast meeting was held at French Lick at which about thirty-five members of the county tuberculosis committees attended. A round table discussion was held in which many took part and a number of those present suggested that such a meeting be held each year. The Anti-Tuberculosis Committee has arranged for a round table discussion Wednesday noon, September 24, to be held at the Claypool Hotel. A nationally known speaker on chest diseases will address the luncheon group.

The Anti-Tuberculosis Committee called a meeting of representatives from the Indiana Township Trustees Association, Indiana Town and City School Administrators' Association, Indiana State Teachers' Association, Indiana State Tuberculosis Association and the Indiana State Medical Association to discuss methods and procedures in the new school employees examination law. All groups sent representatives and, after about four hours' discussion, a program was worked out.

Seventy-five counties have tuberculosis committees with a total membership of 232. It is hoped that each county medical society will appoint a tuberculosis committee for the ensuing year as the medical profession should take the leading part in tuberculosis control.

J. H. Stygall, M.D., *Chairman*
J. V. Pace, M.D.
P. D. Crimm, M.D.
S. R. Combs, M.D.
Robert Staff, M.D.
G. H. Haggard, M.D.
James McBride, M.D.

COMMITTEE ON CONSERVATION OF VISION

House of Delegates,
Indiana State Medical Association

Gentlemen:

We are striving primarily this year to combat the trachoma situation. We are cooperating in every possible way with the Indiana State Board of Health. The cooperation of the general practitioner is most needed and seems to be hardest to get.

We have arranged for an informal meeting at the American Academy of Ophthalmology and Oto-

laryngology at Chicago this fall and hope to have some member of the committee of the National Conservation of Vision of the American Medical Association preside at this meeting. We have reports so far indicating that about half of the state societies have Conservation of Vision Committees. We hope through this meeting to stimulate more interest in this work, to get better coordination among the states, and to promote another meeting with the committee of the A. M. A. at Atlantic City next year.

O. T. ALLEN, M. D., *Chairman*
J. V. CASSADY, M. D.
R. J. MASTERS, M. D.
E. E. HOLLAND, M. D.
E. L. VAN BUSKIRK, M. D.

PNEUMONIA COMMITTEE

House of Delegates,
Indiana State Medical Association

Gentlemen:

The Pneumonia Committee of the Indiana State Medical Association had one meeting during the past year. At this time we sponsored the showing by the Board of Health of the educational film depicting the modern therapy of pneumonia. This has been shown in many theaters over the State. General talks and articles for publication have been arranged.

From March 7, 1939, until August 10, 1941, a total of 109,540,000 units of pneumonia serum have been withdrawn from the State Board of Health stations. There have been 997 requests for this serum. This makes an average of about 100,000 units per case. The vast majorty of this serum has been within types 1, 2, and 3, but there have been requests for 35 different types of serum.

We feel that physicians should avail themselves of this serum wherever serum is indicated. Care should be exercised against over-simplification of the treatment of pneumonia if best results are to be obtained.

C. J. CLARK, M.D., *Chairman*
H. S. RAMSEY, M.D.
A. S. GIORDANO, M.D.
P. L. STIER, M.D.
R. C. HARKNESS, M.D.
R. H. BAYLEY, M.D.
H. C. WADSWORTH, M.D.

ADVISORY COMMITTEE TO THE BUREAU OF MATERNAL AND CHILD HEALTH OF THE INDIANA STATE BOARD OF HEALTH

House of Delegates,
Indiana State Medical Association

Gentlemen:

The Committee was in communication throughout the year with the Bureau of Maternal and Child Health of the Indiana State Board of Health, with whom the committee had a meeting on March 16, 1941. The chief of the Bureau, Dr. Howard B. Mettel, discussed with the Committee operation of the Bureau and plans for the future. There has been little criticism of the various activities. Adjustments have been made to cover the difficulties as they have arisen. None has appeared to be of serious nature.

1. The Children's Division of the State Department of Public Welfare asked for assistance in preparing standards for children in foster homes. This service was cared for satisfactorily.

2. In regard to standards for maternal and child care in large hospitals, a request came from those hospitals asking for standards for the Class A hospitals. A subcommittee was named to arrange for those standards, expecting thus to accommodate them, and report at some future date.

3. The question of handling the problem of maternity work in quarters connected with the general offices of private physicians was left unsettled. We recommend this problem for solution at a later date after a discussion of the question at the State Meeting. The Committee does not approve the present arrangement occasionally found in which deliveries are made in quarters attached to an office for general practice.

4. The Committee approved the plan to have an interdepartmental committee appointed, composed of representatives from the Welfare Department, the Bureau of Maternal and Child Health, and this Advisory Committee; that this committee meet rather regularly to discuss and decide problems which may arise in any of the above named departments and which problems have a bearing on maternal and child health.

5. The Bureau was advised to continue working in harmony with the local physicians in the various defense areas, supplying these physicians with such help as they ask for in maternal and child health problems. We recognize that many difficult problems of various kinds have already presented themselves in those areas. An effort is being made to forestall confusion by being in close contact with the local physicians in those areas, by cooperating with them, and anticipating the needs of the immediate future.

6. The Committee approved a request from the Bureau to provide consultant services over the State in pediatrics and in obstetrics, for persons unable to pay regular consultation fees. Such service would originate as a request in each case from the local physician, the consultant to be paid by funds from the Bureau and the consultants to be selected by the Bureau according to their standards already set up. This plan is similar to the consultation plan for crippled children. We ask

that this action be approved by the House of Delegates.

E. O. Asher, M.D., *Chairman*
K. T. Knode, M.D.
J. C. Carter, M.D.
C. H. Rothschild, M.D.
W. L. Portteus, M.D.
W. R. Springstun, M.D.

DIRECTOR OF RESEARCH ON SICKNESS INSURANCE

House of Delegates,
Indiana State Medical Association

Gentlemen:

National preoccupation with new and major issues has obscured persisting trends toward regimented medicine.

At present, the political advantages of stentorian orations for idealistic medical care are less important, but those primarily responsible for the demand for socialization or, as they more altruistically put it, "improvement of basic facilities," continue to use selective service findings as to physical deficiencies, the inspired reports of health needs of beneficiaries of various tax supported agencies, the widening of collective work agreements and their own disregard of other intercurrent causative factors, as arguments and opportunity for increasing hospitalization and medical care schemes, so that reasonably we may expect a powerful drive for the adoption of a governmentally controlled scheme when the present emergency ends.

In spite of the considerable draft of medical personnel, theoretically accentuating the claimed inadequacy of medical care, the national health seems to continue its improvement and justifies belief that economic conditions continue to be the most powerful factors in health conditions.

The desire of the individual to be treated on a personal basis revives as he is better able to pay for the service he desires.

This instinctive tendency is heretical to the idealistic theory of requiring the individual to have such treatment as a self constituted authority may determine but upon its maintenance depends the security of our long developed methods which perversely go on producing results.

There has been a substantial increase in industrial and even open state wide plans for medical service and hospitaliaztion. This is to be expected with centralization of control of wages, hours and bargaining, for on the surface they seem to be related. But from the medical view, these inherently tend to break down as they grow restrictive or they will create a medical protective system similar to a trade union.

The unusual court decision, penalizing the present method of control and maintenance of ethical standards, apparently requiring abandonment of our methods of continuously raising standards of personal and professional activities, must go to the highest court. And in this demand for review, we undoubtedly will be joined by the legal, engineering and other professions, whose standards, like ours, have been developed by experience and actual knowledge, and who seem to be equally vulnerable. If the decision is affirmed, it seems we must abandon our humanitarian concepts and descend to the levels of a militant trade organization fighting solely for material gain. While the matter is pending, we must mark time, but we have the comfort of knowing that present economic improvement lessens present need for punitive control by men with bizarre ideas.

There is a refreshing note in a recent Pennsylvania Supreme Court decision that hospitals are impressed with a public interest which removes them from the Labor Relations Act and hence unions cannot impose and enforce compulsory negotiations. While this decision is solely a State one, the law is the same as the National Act and a Federal Court might be governed by the same reasoning.

A recent survey of various plans brings the old stories. The non-profit plans continue, as a rule, to live up to their name. The opening enthusiasm and liberality of service becomes dulled by experience and either the benefits are lessened or the medical servants of the plan do more service or receive lower compensation. The Pennsylvania plan to provide payment for indigent service from a tax fund found itself where bills are paid approximately on a one-third basis. Increasing actuarial experience continues to prove that adequate rates for insurance contracts are more useful than theory and hope, and that actual costs for acceptable service are greater than collectable rates so that a subsidy in some form is a necessity to make any presently available plan attractive and workable. It is generally recognized, even by enthusiastic advocates of prepayment plans, that the persons most in need of insurance methods either are not attracted or cannot pay adequate rates.

And again the question arises as to whether the socalled "needed" or the "demanded" services should be furnished. Any attempt to furnish the idealistic "needed" service will entail staggering costs and require a docility of the people comparable with the animals. So far, the health records indicate that if "demanded" services are met and by educational methods, these "demands" are gradually increased, we shall continue to have higher health conditions than any other country.

It is noted that many large industrial organizations are adopting hospital plans and including repayment or direct payment of medical service. But in practically every plan examined, the contract is carried out by a regular insurance company with the employer paying a subsidy over the employe's contributions, which again comes back to the elementary fact that nearly any insurance plan is

workable if it provides sufficient income. With every scheme for the indigent, taxes are the income source, plus the doctor's contribution. Of course the doctor can be paid in part by such income for all indigent service but inevitably the end result is inclusion of all persons irrespective of economic status, and on this very point, the foreign professions began their troubles.

Little information is available as to medical conditions abroad. The English profession recently asked an increase from the present $2.50 per year rate to $3 but were given 12½ cents raise on the ground of increased travel expense and gently reproved for asking an amount much less than increased living expense although current press reports state that wages generally have been increased. Perhaps we could also get accustomed.

In view of present conditions, economic and legal, it seems desirable that this Association take no present new action or attitude concerning supply of medical services by contracts or hospitalization prepayment plans.

WALTER U. KENNEDY, M.D.

COMMITTEE ON PHYSICAL THERAPY

House of Delegates,
Indiana State Medical Association

Gentlemen:

The modern physician should utilize the sciences in practicing his art. In order properly to serve his calling, he must make himself familiar with the many advances made in physical sciences and become learned in their adaptation to the ever-expanding medical field.

The physician should be personally qualified to prescribe in physical medicine as well as other diagnostic and therapeutic fields. The Committee on Physical Therapy since its inception has approved and attempted to institute measures which would familiarize the undergraduate and graduate with physical medicine. We have been stimulated in such efforts by the Council on Physical Therapy of the American Medical Association, because we believe with them that "physical agents should not be used by the physician unless he is thoroughly familiar with the source of the physical energy and with the effects which it will produce."

Despite the recent rapid strides in physical therapy, widespread knowledge of the subject is still lacking. Since "a man is generally 'down on' that which he is not 'up on,'" there are, even now, a few physicians who condemn physical medicine unjustly and, because they do not understand it, believe that it is the "bunk."

A study of the recent questionnaire submitted to the physicians of Indiana, reflecting the opinion of over 40% of the membership, shows that 88% of the general practitioners and 80% of the specialists believe this form of therapy to be of definite value to their patients and that in most instances they directly administer or supervise the treatments themselves—vastly different from the so-called health centers or chiropractic offices where an unskilled attendant turns on a light or a fancy machine! But 1% of the responses indicate definite opposition to the use of this form of therapy. (A complete summary of this questionnaire will be published in THE JOURNAL at a later date.)

Your committee and many thoughtful physicians believe that one of the chief reasons for the thriving medical cults is that many ethical physicians are too narrow in their appreciation of the application of therapeutic measures. When indicated and used by the informed physician, physical medicine widens his potential therapeutic field and should secondarily eliminate the untrained charlatan who is now proselytizing his patients.

Physical medicine rose to its legitimate status during the last World War. In relation to defense, its importance is not at this time exceeded by the more commonly known medical and surgical procedures. Our profession is deplorably unprepared to respond to the current demand of military authorities for adequately trained personnel in this field. The fundamental need for training facilities is now more visible.

Your committee appreciates many of the problems involved in bringing about adequate education in this field. Instruction in various phases of medicine in both undergraduate and graduate study must be proportionate to their relative value to the physician. We desire and need the cooperation of medical educators in providing proper training facilities for the undergraduate and the many physicians who are anxious to utilize them. Such a program to improve conditions now existing is essential to the well-being of immediate and future medical practice. Your committee, in cooperation with the Council on Physical Therapy of the American Medical Association, has made every effort to become familiar with facts relative to proper educational procedure; and respecting the probity of the incredulous, to acquaint the profession and educators with those facts. Believing that the problems involved are solvable, we are hopeful that much will be done to improve conditions as they now exist. Immediate steps should be undertaken toward a more intensive course in the University for undergraduates, the establishment of a recognized school for training of technicians, and a course in postgraduate study either separately or in conjunction with the regular medical and surgical postgraduate course now offered each year.

The multiplicity of problems that have come before your committee in the past two years have of themselves indicated a plan of procedure for several years to come. We feel there should be closer cooperation between this committee and the Committee to Study Cultists and Irregular Practitioners, between now and the next session of

the legislature. The demand for speakers on physical therapy has almost exceeded the supply but we promise each request from county secretaries will be fulfilled.

We wish to express our sincere appreciation for the assistance of President Mitchell and Executive Secretary Thomas Hendricks in particular and the physicians of Indiana in general during the past year.

E. L. Libbert, M.D., *Chairman*
H. W. Smelser, M.D.
A. P. Hauss, M.D.
N. H. Prentiss, M.D.
Don Bowers, M.D.
Virgil McCarty, M.D.
L. E. Werry, M.D.

STUDY COMMITTEE ON AID TO NEEDY PHYSICIANS

House of Delegates,
Indiana State Medical Association

Gentlemen:

At the 1940 session of the Indiana State Medical Association held in French Lick, the House of Delegates took action creating a study committee to make a study of the problem of aid to needy members of the profession in Indiana and "in the event of favorable findings draw up and present a suitable plan at the next regular meeting of the House of Delegates."

In accordance with this recommendation, Dr. A. M. Mitchell, president of the Indiana State Medical Association, appointed the following committee: Ira Perry, North Manchester, chairman; Joseph Crowder, Sullivan; B. B. Moore, Indianapolis; C. Harstad, Rockville; and A. W. Cavins, Terre Haute.

In March of this year through the headquarters office letters were sent to the secretaries of all the county medical societies of the Indiana State Medical Association.

Up to the present date, about twenty-five per cent of the counties have been heard from, and I am pleased to say that no county presented the names of any needy physicians. Two counties reported two doubtful ones; these were investigated and it was found that neither was in need. We are at the present time in communication with the Indiana State Welfare Association to find out whether any physician is drawing old-age pension. From all these facts, we as a committee feel at this time that there is no need for immediate action, but we do feel that such a committee should carry on this work so that no physician in Indiana may come to want.

Ira E. Perry, M.D., *Chairman*
Joseph Crowder, M.D.
B. B. Moore, M.D.
C. Harstad, M.D.
A. W. Cavins, M.D.

HOUSE OF DELEGATES, INDIANA STATE MEDICAL ASSOCIATION

Indianapolis, September 23, 24, and 25, 1941

Delegates	*Alternates*
ADAMS	
F. L. Grandstaff, Decatur	M. L. Habegger, Berne
ALLEN	
M. R. Lohman, Ft. Wayne	C. B. Parker, Ft. Wayne
W. C. Wright, Ft. Wayne	R. W. Elston, Ft. Wayne
M. B. Catlett, Ft. Wayne	L. P. Harshman, Ft. Wayne
BARTHOLOMEW	
R. B. Hart, Columbus	M R. Davis, Columbus
BENTON	
BOONE	
Clancy Bassett, Thorntown	L. M. Headley, Lebanon
CARROLL	
Max Adams, Flora	C. L. Wise, Camden
CASS	
B. W. Egan, Logansport	
CLARK	
E. P. Buckley, Jeffersonville	W. M. Varble, Jeffersonville
CLAY	
H. H. Ward, Coalmont	Fred C. Dilley, Brazil
CLINTON	
M. F. Boulden, Frankfort	B. A. Work, Frankfort
CRAWFORD	
DAVIESS-MARTIN	
S. L. McPherson, Washington (Daviess)	A. G. Blazey, Washington (Daviess)
E. B. Lett, Loogootee (Martin)	E. E. Long, Shoals (Martin)
DEARBORN-OHIO	
J. K. Jackson, Aurora (Dearborn)	G. F. Smith, Lawrenceburg (Dearborn)
G. K. Fessler, Rising Sun (Ohio)	Robert M. Ferguson, Rising Sun (Ohio)
DECATUR	
D. D. Dickson, Letz	B. L. Mahuron, Greensburg
DEKALB	
W. W. Swarts, Auburn	R. A. Nason, Garrett
DELAWARE-BLACKFORD	
L. G Montgomery, Muncie (Delaware)	Clay Ball, Muncie (Delaware)
Guy Owsley, Hartford City (Blackford)	Elmer Cure, Muncie (Delaware)
DUBOIS	
H. C. Knapp, Huntingburg	
ELKHART	
A. C. Yoder, Goshen	D. D. Todd, Elkhart
FAYETTE-FRANKLIN	
A. F. Gregg, Connersville (Fayette)	Francis B. Mountain, Connersville (Fayette)
E. M. Glaser, Brookville (Franklin)	Walter Foreman, Brookville
FLOYD	
William Weaver, New Albany	A. N. Robertson, New Albany

Delegates	Alternates
FOUNTAIN-WARREN	
J. C. Freed, Attica (Fountain)	J. W. Aldridge, Covington (Fountain)
J. S. Hash, Williamsport (Warren)	G. S. Porter, Williamsport (Warren)
FULTON	
A. E. Stinson, Rochester	
GIBSON	
Carl Clark, Oakland City	O. T. Brazelton, Princeton
GRANT	
L. D. Holliday, Fairmount	Russell W. Lavengood, Marion
GREENE	
Ben Raney, Linton	H. B. Turner, Bloomfield
HAMILTON	
C. M. Donahue, Carmel	J. W. Griffith, Sheridan
HANCOCK	
J. E. Ferrell, Fortville	H. K. Navin, Fortville
HARRISON	
Wm. E. Amy, Corydon	
HENDRICKS	
J. C. Stafford, Plainfield	A. N. Scudder, Brownsburg
HENRY	
R. L. Amos, Newcastle	W. S. Robertson, Spiceland
HOWARD	
D. A. Morrison, Kokomo	B. D. Lung, Kokomo
HUNTINGTON	
C. S. Black, Warren	M. G. Erehart, Huntington
JACKSON	
G. H. Kamman, Seymour	W. D. C. Day, Seymour
JASPER-NEWTON	
M. D. Gwinn, Rensselaer (Jasper)	
G. D. Larrison, Morocco (Newton)	R. H. Ruhmkorff, Goodland (Newton)
JAY	
J. E. Nixon, Portland	G. V. Cring, Portland
JEFFERSON	
Wm. A. Shuck, Madison	N. A. Kremer, Madison
JENNINGS	
J. H. Green, North Vernon	D. W. Mathews, North Vernon
JOHNSON	
Oran Province, Franklin	J. Machledt, Whiteland
KNOX	
C. L. Boyd, Vincennes	R. G. Moore, Vincennes
KOSCIUSKO	
O. H. Richer, Warsaw	C. C. DuBois, Warsaw
LAGRANGE	
Harry G. Erwin, LaGrange	W. O. Hilaebrand, Topeka
LAKE	
C. M. Jones, Whiting	R. M. Hedrick, Gary
F. J. McMichael, Gary	R. N. Wimmer, Gary
P. Q. Row, Hammond	C. C. Brink, Gary
C. R. Pettibone, Crown Point	F. A. Malmstone, Griffith
LAPORTE	
J. N. Kelly, LaPorte	Frank Martin, Michigan City
LAWRENCE	
L. H. Allen, Bedford	R. B. Smallwood, Bedford
MADISON	
C. V. Rozelle, Anderson	Sam Litzenberger, Anderson
Weir Miley, Anderson	G. B. Wilder, Anderson

Delegates	Alternates
MARION	
E. F. Boggs, Indianapolis	L. H. Kornafel, Indianapolis
W. F. Kelly, Indianapolis	C. E. Cox, Indianapolis
M. V. Kahler, Indianapolis	Brandt F. Steele, Indianapolis
E. O. Asher, New Augusta	Robt. M. Dearmin, Indianapolis
L. L. Shuler, Indianapolis	G. W. Gustafson, Indianapolis
M. J. Spencer, Indianapolis	J. B. Stalker, Indianapolis
Henry F. Nolting, Indianapolis	H. G. Morgan, Indianapolis
Ben B. Moore, Indianapolis	E. W. Dyar, Indianapolis
R. Lochry, Indianapolis	H. F. Nolting, Indianapolis
O. W. Sicks, Indianapolis	F. M. Gastineau, Indianapolis
O. H. Bakemeier, Indianapolis	P. E. McCown, Indianapolis
Roy A. Geider, Indianapolis	C. L. Rudesill, Indianapolis
J. H. Warvel, Indianapolis	Matthew Winters, Indianapolis
MARSHALL	
A. A. Thompson, Tyner	
MIAMI	
H. E. Line, Chili	
MONROE	
R. C. Austin, Bloomington	H. S. Hepner, Bloomington
MONTGOMERY	
MORGAN	
Austin D. Sweet, Martinsville	W. J. Stangle, Mooresville
NOBLE	
W. F. Carver, Albion	A. L. Fipp, Rome City
ORANGE	
George Dillinger, French Lick	J. K. Spears, Paoli
OWEN	
R. H. Pierson, Spencer	Oran Kay, Spencer
PARKE-VERMILLION	
Paul B. Casebeer, Clinton (Vermillion)	A. E. Sabin, Dana (Vermillion)
E. H. Dowell, Rockville (Parke)	J. R. Bloomer, Rockville (Parke)
PERRY	
B. V. Lally, Tell City	F. C. Glenn, Tell City
PIKE	
J. T. Kime, Petersburg	L. R. Miller, Winslow
PORTER	
POSEY	
H. E. Ropp, New Harmony	F. W. Oliphant, Mt. Vernon
PULASKI	
H. J. Halleck, Winamac	T. E. Carneal, Winamac
PUTNAM	
W. J. Fuson, Greencastle	W. R. Tipton, Greencastle
RANDOLPH	
J. S. Robison, Winchester	
RIPLEY	
R. Lee Smith, Osgood	
RUSH	
Willard C. Smullen, Rushville	C. C. Atkins, Rushville
ST. JOSEPH	
A. S. Giordano, South Bend	C. E. Savery, South Bend
G. M. Rosenheimer, So. Bend	J. E. Lang, South Bend
Erwin Blackburn, So. Bend	
SCOTT	
M. L. McClain, Scottsburg	F. S. Napper, Scottsburg
SHELBY	
W. D. Inlow, Shelbyville	P. R. Tindall, Shelbyville
SPENCER	
V. V. Schriefer, St. Meinrad	J. C. Glackman, Jr., Spencer

Delegates	Alternates
STARKE	
STEUBEN	
B. A. Blosser, Fremont	M. A. Crum, Angola
SULLIVAN	
J. T. Oliphant, Farmersburg	J. H. Crowder, Sullivan
SWITZERLAND	
L. H. Bear, Vevay	George Ellebrook, Vevay
TIPPECANOE	
E. Van Reed, Lafayette	O. L. McCay, Romney
G. A. Thomas, Lafayette	R. R. Calvert, Lafayette
TIPTON	
S. M. Cotton, Goldsmith	A. E. Stouder, Kempton
VANDERBURGH	
Minor Miller, Evansville	Joe H. McCool, Evansville
R. Acre, Evansville	C. W. Cullnane, Evansville
P. E. Yunker, Evansville	M. S. Durkee, Evansville
VIGO	
O. R. Spigler, Terre Haute	E. O. Nay, Terre Haute
R. G. Harkness, Terre Haute	A. W. Cavins, Terre Haute

Delegates	Alternates
WABASH	
C. Eugene Cook, North Manchester	O. G. Brubaker, North Manchester
WARRICK	
Bowen Hoover, Boonville	C. L. Luckett, Boonville
WASHINGTON	
Claude Paynter, Salem	Donald Colglazier, Salem
WAYNE-UNION	
H. P. Ross, Richmond (Wayne)	E. E. Holland, Richmond (Wayne)
Will Thompson, Liberty (Union)	James Lewis, Liberty (Union)
WELLS	
Max M. Gitlin, Bluffton	A. C. Nickel, Bluffton
WHITE	
J. P. Galbreth, Burnettsville	H. W. Greist, Monticello
WHITLEY	
P. A. Gaber, South Whitley	

REFERENCE COMMITTEES—1941

1. SECTIONS AND SECTION WORK:

Chairman, M. R. Lohman, Fort Wayne (Allen)
G. H. Kamman, Seymour (Jackson)
R. C. Austin, Bloomington (Monroe)
R. Lee Smith, Osgood (Ripley)
Erwin Blackburn, So. Bend (St. Joseph)

2. RULES AND ORDER OF BUSINESS:

Chairman, M. F. Boulden, Frankfort (Clinton)
C. Eugene Cook, North Manchester (Wabash)
H. H. Ward, Coalmont (Clay)
O. R. Spigler, Terre Haute (Vigo)
H. E. Line, Chili (Miami)

3. MEDICAL EDUCATION AND HOSPITALS:

Chairman, J. T. Oliphant, Farmersburg (Sullivan)
Oran Province, Franklin (Johnson)
Robert H. Pierson, Spencer (Owen)
John H. Warvel, Indianapolis (Marion)
R. G. Harkness, Terre Haute (Vigo)

4. PUBLIC POLICY AND LEGISLATION

Chairman, George Dillinger, French Lick (Orange)
E. H. Dowell, Rockville (Parke)
E. P. Buckley, Jeffersonville (Clark)
B. W. Egan, Logansport (Cass)
D. A. Morrison, Kokomo (Howard)

5. PUBLICITY:

Chairman, C. N. Combs, Terre Haute (Vigo)
A. E. Stinson, Rochester (Fulton)
C. S. Black, Warren (Huntington)
Walter F. Kelly, Indianapolis (Marion)
W. D. Inlow, Shelbyville (Shelby)

6. HYGIENE AND PUBLIC HEALTH:

Chairman, Claude Paynter, Salem (Washington)
Minor Miller, Evansville (Vanderburgh)
S. M. Cotton, Goldsmith (Tipton)
H. P. Ross, Richmond (Wayne)
William Weaver, New Albany (Floyd)

7. AMENDMENTS TO CONSTITUTION AND BY-LAWS:

Chairman, J. H. Weinstein, Terre Haute (Vigo)
Ben B. Moore, Indianapolis (Marion)
Weir M. Miley, Anderson (Madison)
Max Adams, Flora (Carroll)
L. G. Montgomery, Muncie (Delaware)

8. REPORTS OF OFFICERS:

Chairman, C. M. Jones, Whiting (Lake)
P. E. Yunker, Evansville (Vanderburgh)
Clancy Bassett, Thorntown (Boone)
Carl M. Clark, Oakland City (Gibson)
O. H. Richer, Warsaw (Kosciusko)

9. COMMITTEE ON CREDENTIALS:

Chairman, J. E. Ferrell, Fortville (Hancock)
L. H. Allen, Bedford (Lawrence)
Gordon A. Thomas, Lafayette (Tippecanoe)
O. W. Sicks, Indianapolis (Marion)
M. B. Catlett, Fort Wayne (Allen)
Ex-officio: W. E. Amy, Corydon (Harrison)
A. L. Fipp, Rome City (Noble)
J. W. Bowers, Fort Wayne (Allen)

10. COMMITTEE ON MISCELLANEOUS BUSINESS:

Chairman, A. C. Yoder, Goshen (Elkhart)
E. O. Asher, New Augusta (Marion)
A. A. Thompson, Tyner (Marshall)
B. V. Lally, Tell City (Perry)
J. S. Robison, Winchester (Randolph)

MEET YOUR FRIENDS AT
THE ANNUAL CONVENTION IN
INDIANAPOLIS—SEPTEMBER 23, 24, 25

LIST OF PRESIDENTS OF THE INDIANA STATE MEDICAL ASSOCIATION SINCE ITS ORGANIZATION

Name and Residence	*Elected*	*Served*
*Livingston Dunlap, Indianapolis	1849	1849
*William T. S. Cornett, Versailles	1849	1850
*Asahel Clapp, New Albany	1850	1851
*George W. Mears, Indianapolis	1851	1852
*Jeremiah H. Brower, Lawrenceburg	1852	1853
*Elizur H. Deming, Lafayette	1853	1854
*Madison J. Bray, Evansville	1854	1855
*William Lomax, Marion	1855	1856
*Daniel Meeker, LaPorte	1856	1857
*Talbott Bullard, Indianapolis	1857	1858
*Nathan Johnson, Cambridge City	1858	1859
*David Hutchinson, Mooresville	1859	1860
*Benjamin S. Woodworth, Fort Wayne	1860	1861
*Theophilus Parvin, Indianapolis	1861	1862
*James F. Hibberd, Richmond	1862	1863
*John Sloan, New Albany	1863	1864
*John Moffett (acting), Rushville	1864	1864
*Samuel M. Linton, Columbus	1864	1864
*Myron H. Harding, Lawrenceburg	1865	1865
*Wilson Lockhart (acting), Danville	1865	1866
*Vierling Kersey, Richmond	1866	1867
*John S. Bobbs, Indianapolis	1867	1868
*Nathaniel Field, Jeffersonville	1868	1869
*George Sutton, Aurora	1869	1870
*Robert M. Todd, Indianapolis	1870	1871
*Henry P. Ayres, Fort Wayne	1871	1872
*Joel Pennington, Milton	1872	1873
*Isaac Casselbery, Evansville	1873	1874
*Wilson Hobbs, Knightstown	1873	1874
*Richard E. Haughton, Richmond	1874	1875
*John H. Helm, Peru	1875	1876
*Samuel S. Boyd, Dublin	1876	1877
*Luther D. Waterman, Indianapolis	1877	1878
*Louis Humphreys, South Bend	1878	——
*Benj. Newland (acting), Bedford (v.-p.)	1878	1879
*Jacob R. Weist, Richmond	1879	1880
*Thomas B. Harvey, Indianapolis	1880	1881
*Marshall Sexton, Rushville	1881	1882
*William H. Bell, Logansport	1882	1883
*Samuel E. Munford, Princeton	1883	1884
*James H. Woodburn, Indianapolis	1884	1885
*James S. Gregg, Fort Wayne	1885	1886
*General W. H. Kemper, Muncie	1886	1887
*Samuel H. Charlton, Seymour	1887	1888
*William H. Wishard, Indianapolis	1888	1889
*James D. Gatch, Lawrenceburg	1889	1890
*Gonsolvo C. Smythe, Greencastle	1890	1891
*Edwin Walker, Evansville	1891	1892
*George F. Beasley, Lafayette	1892	1893
*Charles A. Daugherty, South Bend	1893	1894
*Elijah S. Elder, Indianapolis	1894	1895
Charles S. Bona (acting), Richmond	1894	1895
*Miles F. Porter, Fort Wayne	1895	1896
*James H. Ford, Wabash	1896	1897
*William N. Wishard, Indianapolis	1897	1898
*John C. Sexton, Rushville	1898	1899
*Walker Schell, Terre Haute	1899	1900
*George W. McCaskey, Fort Wayne	1900	1901
*Alembert W. Brayton, Indianapolis	1901	1902
*John B. Berteling, South Bend	1902	1903
*Jonas Stewart, Anderson	1903	1904
*George T. MacCoy, Columbus	1904	1905
*George H. Grant, Richmond	1905	1906
*George J. Cook, Indianapolis	1906	1907
*David C. Peyton, Jeffersonville	1907	1908
*George D. Kahlo, French Lick	1908	1909
*Thomas C. Kennedy, Shelbyville	1909	1910
*Frederic C. Heath, Indianapolis	1910	1911
*William F. Howat, Hammond	1911	1912
*A. C. Kimberlin, Indianapolis	1912	1913
*John P. Salb, Jasper	1913	1914
*Frank B. Wynn, Indianapolis	1914	1915
*George F. Keiper, Lafayette	1915	1916
*John H. Oliver, Indianapolis	1916	1917
Joseph Rilus Eastman, Indianapolis	1917	1918
William H. Stemm, North Vernon	1918	1919
*Charles H. McCully, Logansport	1919	1920
*David Ross, Indianapolis	1920	1921
William R. Davidson, Evansville	1921	1922
*Charles H. Good, Huntington	1922	1923
*Samuel E. Earp, Indianapolis	1923	1924
E. M. Shanklin, Hammond	1924	1925
C. N. Combs, Terre Haute	1925	1926
Frank W. Cregor, Indianapolis	1926	1927
George R. Daniels, Marion	1926	1928
Charles E. Gillespie, Seymour	1927	1929
Angus C. McDonald, Warsaw	1928	1930
Alois B. Graham, Indianapolis	1929	1931
Franklin Smith Crockett, Lafayette	1930	1932
Joseph H. Weinstein, Terre Haute	1931	1933
Everett E. Padgett, Indianapolis	1932	1934
*Walter J. Leach, New Albany	1933	1935
Roscoe L. Sensenich, South Bend	1934	1936
*Edmund Dougan Clark, Indianapolis	1935	1937
Herman M. Baker, Evansville	1936	1938
Edmund M. Van Buskirk, Fort Wayne	1937	1939
Karl R. Ruddell, Indianapolis	1938	1940
Albert M. Mitchell, Terre Haute	1939	1941

* *Deceased*

DATA FROM PREVIOUS SESSIONS

Year	*Session*	*Place*	*Registration*
1908	59th	French Lick	312
1909	60th	Terre Haute	421
1910	61st	Fort Wayne	450
1911	62nd	Indianapolis	748
1912	63rd	Indianapolis	590
1913	64th	West Baden	312
1914	65th	Lafayette	527
1915	66th	Indianapolis	646
1916	67th	Fort Wayne	381
1917	68th	Evansville	270
1918	69th	Indianapolis	388
1919	70th	Indianapolis	-----
1920	71st	South Bend	421
1921	72nd	Indianapolis	550
1922	73rd	Muncie	522
1923	74th	Terre Haute	823
1924	75th	Indianapolis	1,012
1925	76th	Marion	800
1926	77th	West Baden	900
1927	78th	Indianapolis	1,500
1928	79th	Gary	892
1929	80th	Evansville	814
1930	81st	Fort Wayne	1,115
1931	82nd	Indianapolis	1,033
1932	83rd	Michigan City	904
1933	84th	French Lick	637
1934	85th	Indianapolis	1,814
1935	86th	Gary	1,011
1936	87th	South Bend	1,150
1937	88th	French Lick	1,154
1938	89th	Indianapolis	1,751
1939	90th	Fort Wayne	1,332
1940	91st	French Lick	1,064
1941	92nd	Indianapolis	?

INDIANAPOLIS SESSION—COMMITTEE CHAIRMEN

Finance Committee—C. L. Rudesill, M. D.
Lantern Committee—James N. Collins, M. D.
Hotel Committee—Ernest Rupel, M. D.
Smoker and Stag Party—Ben B. Moore, M. D.—under direct supervision of General Chairman.
Publicity Committee—Chester A. Stayton, M. D.
Golf Committee—E. W. Dyar, M. D.
Trap and Skeet Shoot Committee—L. A. Easminger, M. D.
Registration Committee—Walter F. Kelly, M. D.
Clinic Committee—J. K. Berman, M. D.
Entertainment Committee—Bert Ellis, M. D.
Automobile Committee—Harry Foreman, M. D.
Military Service Committee—Larue Carter, M. D.
Ladies' Entertainment Committee—Jane Ketcham, M. D.
Reception Committee—John Warvel, M. D.
Fraternity and Class Get-together Committee—Eugne Boggs, M. D.

EXHIBITORS

Booth Number

1. A. S. ALOE COMPANY, St. Louis, Missouri
2. WHITE-HAINES OPTICAL CO., Columbus, Ohio
3.
4.
5. COCA-COLA COMPANY, Atlanta, Georgia
6-7. CHEMICO LABORATORIES, Indianapolis, Ind.
8. SMITH, KLINE & FRENCH LABORATORIES, Philadelphia
9. MAX WOCHER COMPANY, Cincinnati, Ohio
10. J. E. HANGER, INC., Indianapolis, Ind.
11. PHILIP MORRIS & CO., New York City
12. WHITE LABORATORIES, INC., Newark, N. J.
13. MEDICAL PROTECTIVE CO., Fort Wayne, Ind.
14. McKESSON APPLIANCE COMPANY, Toledo, Ohio
15. PET MILK SALES CORPORATION, St. Louis, Mo.
16. HORLICK'S MALTED MILK CORP., Racine, Wisconsin
17. HOLLAND-RANTOS COMPANY, INC., New York City
18. M & R DIETETIC LABORATORIES, INC., Columbus, Ohio
19. THE MENNEN COMPANY, Newark, N. J.
20. HOOSIER PHARMACAL COMPANY, Indianapolis, Ind.
21. LEDERLE LABORATORIES, New York City.
22. DE PUY MANUFACTURING COMPANY, Warsaw, Indiana
23. LUZIER'S, INC., Kansas City, Mo.
24-25. MEAD JOHNSON & COMPANY, Evansville, Ind.
26. H. J. HEINZ COMPANY, Pittsburgh, Pa.
27. MELLIN'S FOOD COMPANY, Boston, Mass
28. SHARP & DOHME, Philadelphia, Pa.
29. PETROLAGAR LABORATORIES, Chicago, Ill.
30. SCHERING CORPORATION, Bloomfield, N. J.
31. E. R. SQUIBB & SONS COMPANY, New York, N. Y.
32. THE BORDEN COMPANY, New York, N. Y.
33. SCIENTIFIC SUGARS COMPANY, Columbus, Ind.
34. GENERAL ELECTRIC X-RAY CORP., Chicago, Ill.
35. W. B. SAUNDERS COMPANY, Philadelphia and London
36. PITMAN-MOORE COMPANY, Indianapolis, Ind.
37. DICK X-RAY COMPANY, St. Louis, Mo.
38. GERBER PRODUCTS, Fremont, Michigan
39. ELI LILLY & COMPANY, Indianapolis, Ind.
40. AMERICAN HOSPITAL SUPPLY CORP., Chicago, Ill.
41. THE JUNKET FOLKS, Little Falls, N. Y.
42. PARKE-DAVIS & COMPANY, Detroit, Michigan
43. R. B. DAVIS COMPANY, Hoboken, N. J.
44. LAKESIDE LABORATORIES, INC. Milwaukee, Wisconsin
45. AKRON SURGICAL HOUSE, Indianapolis, Ind.
46.
47. JOHN WYETH AND BROTHER, INC., Philadelphia, Pa.
48.
49. AMERICAN OPTICAL COMPANY, Southbridge, Mass.

Booth 1

A. S. ALOE COMPANY

St. Louis, Missouri

A. S. Aloe Company will show a complete line of American-made stainless steel and chrome surgical instruments. Aloe STEELINE furniture for the physician will also be featured. Specialties to be exhibited will include the Aloe Diagnostic X-Ray, new models of Aloe Short Wave Apparatus, an improved Electrocardiograph and many other items. A special display of clinical laboratory apparatus and supplies will be offered.

Aloe representatives Hawes Dwinell and Don McCammond will be in charge of the exhibit.

Booth 2

THE WHITE-HAINES OPTICAL COMPANY

Columbus, Ohio

This exhibit will feature the latest developments of optical science, including a display of modern equipment. The new "Ortho-Lite," last word in an operating lamp, will be demonstrated, as will other modern Bausch & Lomb precision instruments. In addition, this exhibit will have the much-discussed Wottring Rotoscope on display. This is the orthoptic instrument used by so many ophthalmologists, clinics and hospitals throughout the country. Visitors will also find in this exhibit an interesting display of ophthalmic products such as Panoptik bifocals (including the improved cataract lens), Orthogon and Soft-Lite lenses, and the well-known screwless rimless mounting, the Loxit, developed by Bausch & Lomb. Manager of the Indianapolis White-Haines office in the Hume-Mansur Building, Mr. Don Rowles, will be at the booth, as will representatives Jack Shreffler and Maurice May.

Booth 5

COCA COLA COMPANY

Atlanta, Georgia

Coca-Cola will be served to the delegates at the convention with the compliments of the Coca-Cola Company.

Booths 6 ad 7

CHEMICO LABORATORIES

Indianapolis

Chemico Laboratories is pleased to announce its attendance at the annual convention of the Indiana State Medical Association, where it will exhibit many injectable preparations of their manufacture. An interesting exhibit is planned, in charge of our local representative, Mr. Frank Hamp, who has recently taken over the territory previously covered by our Mr. James Miller who is now in the service of the United States Army. Mr. Hamp is looking forward to the pleasure of meeting our many good friends, and we sincerely trust you will find time to visit our exhibit during your attendance at the convention.

Booth 8

SMITH, KLINE & FRENCH LABORATORIES

Philadelphia, Pa.

This year, Smith, Kline & French Laboratories begins its second century of service to the medical profession. The members of the Indiana State Medical Association are cordially invited to visit this exhibit and discuss the products displayed. These will include Benzedrine Inhaler, Benzedrine Sulfate Tablets, Benzedrine Solution, and Pentnucleotide.

H. Osborne Walton will be in charge.

Booth 11

PHILIP MORRIS & COMPANY

New York, N. Y.

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Booth 12

WHITE LABORATORIES, INC.

Newark, New Jersey

Within recent years tremendous advances in vitamin research have added a wealth of clinical data to our knowledge of nutrition.

The intense interest of the laity, in the vitamins—often, unfortunately, confused and misled by unauthoritative lay advertising and uninformed "information"—can be properly controlled by the physician's interpretation of the actual usefulness of the vitamins to his patients.

In Booth No. 12, White Laboratories, Inc., presents its complete line of ethically promoted, clinically reputable vitamin preparations. Qualified representatives are in attendance to discuss with you the use of White's products in vitamin prophylaxis and therapy. Descriptive literature is available for your review.

Booth 13

THE MEDICAL PROTECTIVE COMPANY

Fort Wayne, Indiana

The Medical Protective Company's representative, thoroughly trained in Professional Liability underwriting, invites you to visit exhibit booth No. 13. He is entirely familiar with the principles of the reciprocal rights and duties of a doctor and patient and with the circumstances peculiar to that relationship. He will be glad to explain how his Company meets the exacting requirements of adequate liability protection, which are peculiar to the Professional Liability field.

Booth 15

PET MILK SALES CORPORATION

Saint Louis, Missouri

A working model irradiator, in miniature—demonstrating the method by which the Vitamin D content of Pet Milk is increased by exposure to ultra-violet light—will be exhibited by the Pet Milk Company.

General information on Pet Milk in relation to infant feeding will be available. Miniature Pet Milk cans will be given to each physician visiting the exhibit.

Booth 16

HORLICK'S MALTED MILK CORPORATION

Racine, Wisconsin

You are cordially invited to visit the Horlick Booth and enjoy a refreshing drink of cholocate Malted Milk.

New, Horlick's Malted Milk, Fortified, with vitamins A, B_1, D and G (B_2) is now available. A palatable and easily digested milk food to supplement the diet. Horlick's same basic nutrition from milk and malted grains—proteins, fats, soluble carbohydrates, minerals—with added vitamin fortification.

It is, therefore, recommended for use in most instances where a liquid or semi-liquid diet is indicated and in health building programs for growing children, expectant mothers and aged persons.

Booth 17

HOLLAND-RANTOS COMPANY, INC.

New York, N. Y.

The latest developments in the field of medically prescribed contraceptives will be featured at the booth of the Holland-Rantos Company. The Koromex diaphragm, Koromex jelly, H-R Emulsion cream, the new Trip-Release Diphragm Introducer, the Pelviform vaginal models will be items worthy of your close inspection. Rantex masks and Rantex caps for the operating room will be of unusual interest to surgeons who are looking for something comfortable yet efficient in this line.

Booth 18

M & R DIETETIC LABORATORIES, INC.

Columbus, Ohio

Similac, a completely modified milk specially prepared for infants deprived either partially or entirely of breast milk, is being featured by M & R Dietetic Laboratories, Inc. Competent representatives will be pleased to discuss with you the value of the zero curd tension of Similac as it applies to both normal and special feeding cases, or to answer any related questions.

Booth 19

THE MENNEN COMPANY

Newark, N. J.

The Mennen Company will exhibit their two baby products —Antiseptic Oil and Antiseptic Borated Powder. The Antiseptic Oil is now being used routinely by more than 90 per cent of the hospitals that are important in maternity work. Be sure to register at the Mennen exhibit and receive your kit containing demonstration sizes of their shaving and after-shave products; also, for the lucky number prize drawing to be held at the close of the Convention for DeLuxe Fitted Leather Toilet Kits.

Booth 20

HOOSIER PHARMACAL COMPANY

Indianapolis

This year marks the twenty-fifth anniversary of the Hoosier Pharmacal Company, and we expect to carry out our exhibit in the customary silver color scheme. We shall be pleased to have those attending the convention call upon us.

We take this opportunity to express our appreciation to the many friends who have made possible our twenty-five years of serving the medical profession, and we hope to have the privilege of meeting new friends at this convention.

Booth 21

LEDERLE LABORATORIES

New York, N. Y.

Lederle Laboratories is again pleased to display at the annual meeting of the Indiana State Medical Association. We are proud to say that we number the Indiana members of the medical profession among our most valued friends.

In Lederle's rapidly growing pharmaceutical line there are included all of the sulfonamide preparations that have proved to be of value to date. Physicians are invited to attend the exhibit where they will find on display sulfonamides, from the original Sulfanilamide to the latest release, Sulfadiazine. Any questions on the use of these drugs will be answered either by our men in attendance or referred to our professional staff.

Booth 22

DE PUY MANUFACTURING COMPANY

Warsaw, Indiana

DePuy will exhibit fracture appliances, Lorenzo Bone Set of stainless steel, Smith-Peterson Nails of stainless steel, and the Hyperextension Frame for body casts. You are invited to visit our exhibit. Mr. Charles F. Klingel will be in charge and will be glad to answer any questions.

Booth 23

LUZIER'S, INC.

Kansas City, Missouri

Many physicians recommend Luzier's Service because they know—(1) That Luzier's Fine Cosmetics and Perfumes are accepted for advertising in publications of the American Medical Association; (2) That where allergic manifestations are concerned they can get detailed information concerning the Luzier formulary and, in specific cases, raw materials for patch-testing; and (3) That this service is made available to their patients by cosmetic consultants who assist with the selection of suitable beauty aids and explain how they are best applied to achieve the loveliest possible cosmetic effect.

Representatives in attendance will be Mr. Eiser, Mr. Abbott, and Mrs. Cora M. D'Arcy.

Booths 24 and 25

MEAD JOHNSON & COMPANY

Evansville

Mead Johnson and Company are displaying several new products, including Mead's Menadione in Oil Capsules (Vitamin K); Mead's Riboflavin Tablets, 1 Mg.; Mead's Ascorbic Acid Tablets, 100 Mg., scored tablets.

In addition, they are exhibiting some interesting charts showing the importance of routine iron and vitamin B complex supplementation during the first two years of life.

Booth 26

H. J. HEINZ COMPANY

Pittsburgh, Pa.

The makers of Heinz Strained and Junior Foods appreciate the confidence which the members of the Indiana State Medical Association have expressed in their recommendation of these foods for infant feeding and special diets. Some of these foods are on display as well as various literature—newest of which is the 9th edition of the Nutritional Chart, and Nutritional Observatory. Mr. E. L. Winders is at your service and will welcome members and friends at the exhibit.

Booth 27

MELLIN'S FOOD COMPANY

Boston, Mass.

Physicians are cordially invited to call and make inquiries regarding details of composition and application of Mellin's Food. During the seventy-five years of its existence, Mellin's Food has so well established itself as to be worthy of consideration in any attempt to arrange nourishment for infants, children and adults.

Booth 28

SHARP & DOHME

Philadelphia, Pa.

Sharp & Dohme will have their new modern display at Booth No. 28 this year, featuring "Delvinal" Sodium, "Lyovac" Normal Human Plasma, "Lyovac" Bee Venom Solution and other "Lyovac" biologicals. There will also be on display a group of new biological and pharmaceutical specialties prepared by this house, such as "Propadrine" Hydrochloride Products, "Robellon," "Padrophyll," "Riona," "Depropanex," and "Ribothiron."

Capable, well-informed representatives will be on hand to welcome all visitors and furnish information on Sharp & Dohme products.

Booth 29

PETROLAGAR LABORATORIES, INC.

Chicago

This year Booth No. 29 will be occupied by Petrolagar Laboratories, Inc., who offer, in addition to samples of the Five Types of Petrolagar, an interesting selection of descriptive literature and anatomical charts. Ask the Petrolagar representative, Mr. J. H. Mann, to show you the Habit Time booklet. It is a welcome aid for teaching bowel regularity to your patients.

Booth 30

SCHERING CORPORATION

Bloomfield, New Jersey

At the Schering booth, physicians are invited to pause, relax and learn of new developments in the swiftly advancing field of endocrinology—and how to utilize these advances in actual practice. Thus the new lactogenic hormone, "Prolactin-Schering," will be exhibited, as well as "Oreton-M" Tablets (the orally effective male sex hormone preparation) and "Cortate," life-saving adrenal cortical hormone for swift, uncomplicated recovery in surgery and burns. In addition to highly advanced endocrines, the Schering exhibit presents "Sulamyd," the powerful new sulfonamide of distinctly greater safety, for urinary tract infections and gonorrhea, hailed this summer as "almost a specific" for B. coli; and the new "Ludozan" Tablets, the antacid forming a true gel at gastric pH and thus furnishing unequalled protective action over a prolonged period after administration. Already familiar to the alert physician is "Baravit," vitomin-reinforced bulk laxative containing the vegetable gum bassorin, which has 29 times the bulk-forming power of agar (Bastedo), for direct relief of constipation and progressive restoration of intestinal tone. Discussion of your own case problems is welcomed by members of the Medical Research Division who are in attendance at the Schering booth. Cigarette lighters and literature available upon request.

Booth 31

E. R. SQUIBB & SONS COMPANY

New York, N. Y.

Physicians attending the annual convention of the Indiana State Medical Association are cordially invited to visit the Squibb Exhibit in Booth No. 31. The complete line of Squibb Vitamin, Glandular, Arsenical and Biological Products and Specialties, as well as a number of interesting new items will be featured.

Well informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

Booth 32

THE BORDEN COMPANY

New York, N. Y.

Visit Booth No. 32 to see infant foods made entirely from Board-of-Health-inspected milk and designed specifically for infant formulas. Biolac, the distinctive new **liquid** infant food, affords convenience, economy, and optimal nutrition; it is sterile and requires simply dilution with boiled water to make a complete formula. Preparation of the whole day's feedings is done in only 15 minutes. Beta Lactose is **nature's** carbohydrate in an improved, readily soluble form. Dryco provides **formula flexibility** for every feeding problem. Also Klim, Merrell-Soule Products, and Irradiated Evaporated Milk.

Booth 33

SCIENTIFIC SUGARS COMPANY

Columbus, Indiana

Cartose, Hidex and the Kinney line of nutritional products will be displayed and new items of interest to the medical profession will be introduced at the booth of the Scientific Sugars Company. Physicians are cordially invited to stop.

Booth 34

GENERAL ELECTRIC X-RAY CORPORATION

Chicago, Illinois

The General Electric X-Ray Corporation's exhibit will contain equipment for 4 by 5 photo-roentgenography, the tuberculosis case-finding procedure that is accurate as well as economical and that has been adopted by the United States Army and by numerous communities and organizations throughout the country.

Booth 35

W. B. SAUNDERS COMPANY

Philadelphia and London

This publishing house will have on display their complete line of books of interest to physicians and specialists. Of particular interest are Ladd & Gross' "Abdominal Surgery of Childhood," Kolmer & Tuft's "Clinical Immunity, Biotherapy and Chemotherapy," Graybiel & White's "Electrocardiography in Practice," the new Griffith & Mitchell's "Pediatrics," Krusen's new "Physical Medicine," Novak's "Obstetrical and Gynecological Pathology," Walters & Snell's "The Gallbladder and its Diseases," Lewin's "Infantile Paralysis," Steinbrocker's "Arthritis," Johnstone's "Occupational Diseases," Pelouze's "Office Urology," the new Cecil's "Medicine," new Ewing's "Neoplastic Diseases," Wilder's "Clinical Diabetes," and a number of other important new books and new editions.

Booth 36

PITMAN-MOORE COMPANY

Indianapolis

Products which have been added to the Pitman-Moore line since the last meeting of the Indiana State Medical Association will be featured among those shown in the Pitman-Moore space.

However, there will be a soft-pedaling of commercialism, the company preferring to have its friends in the profession look upon its booth as a place at which to meet old friends.

In addition to members of the Indiana sales force, members of the scientific staffs of the company's pharmaceutical laboratories at Indianapolis and its biological laboratories near Zionsville will be in attendance.

Booth 37

THE DICK X-RAY COMPANY

St. Louis, Missouri

The Dick X-Ray Company will exhibit in their booth x-ray equipment manuactured by the Westinghouse X-Ray Division. It will be entirely shockproof, of the latest design, and incorporate features that are outstanding in the x-ray line.

There will be shown in the same exhibit equipment as manufactured by the Liebel-Flarsheim Company well known for their Davis Bovie Surgical unit, Short Wave Diathermy equipment, Hypotherm Fever Cabinet, Orificial Cold Quartz Lamp, etc.

In this exhibit will be several representatives of the Dick X-Ray Company who will be glad to explain the many features of the equipment that we have on display. You will not be obligated if you visit our booth.

Booth 38

GERBER BABY FOODS

Fremont, Michigan

Gerber's new Oatmeal, cooked, dried and ready to serve will be on display.

There are now two precooked, dry cereals, one a wheat, the other an oatmeal cereal. Of the canned foods, there are both Strained and Junior or Chopped Foods.

Booklets available for distribution to mothers or patients on special diets as well as professional literature will be sent to registrants, for examination.

Booth 39

ELI LILLY AND COMPANY

Indianapolis

Eli Lilly and Company will demonstrate the germicidal efficacy of "Merthiolate" (Sodium Ethyl Mercuri Thiosalicylate, Lilly) and the compatibility of the antiseptic with body cells and fluids. Other new and useful products will be featured.

Booth 40

AMERICAN HOSPITAL SUPPLY CORPORATION

Chicago

Don't fail to see the demonstration of the new, amazingly simple and safe technique for the preparation of plasma and serum with Baxter Centri-Vac and Plasma-Vac containers. Two other well known Baxter Products, the Transfuso Vac and intravenous solutions in Baxter Vacoliters will also be demonstrated.

The new simplified Baxter sedimentation technique for the preparation of plasma, which is ideally suited for small hospitals, will also be shown.

The perfected American Respirator, which is as different from the familiar "Iron Lung" as a modern motor car is from the early Model "T" will be shown. It has 27 exclusive features not found in other respirators.

There will also be shown the Tomac Gastro Evacuator (100% more suction); the Myrick Bedside Sterilizer; the remarkable new sheeting material, Tomac Exylin; and the Tomac Plaster Bandage Machine, that makes a perfect bandage a minute.

Booth 41

THE JUNKET FOLKS

Little Falls, N. Y.

"THE 'JUNKET' FOLKS," Chr. Hansen's Laboratory, Inc., display rennet-custards made with "Junket" Rennet Powder and "Junket" Rennet Tablets. There is also a display of all "Junket" Brand Food Products. Enlarged photographs show how the rennet enzyme in rennet-custards transforms milk into softer, finer curds. Rennet-custards are widely recommended for infants, children, convalescents, post-operative cases and as a delicious, healthful dessert for the whole family. Fully informed attendants will be on duty.

Booth 42

PARKE, DAVIS & COMPANY

Detroit, Michigan

Featured in the Parke-Davis Exhibit will be the sex hormones, Theelin and Theelol; antisyphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparations, including Pituitrin, Pitocin and Pitressin; and various Adrenalin Chloride Preparations.

Booth 43

R. B. DAVIS COMPANY

Hoboken, N. J.

You are invited to enjoy a drink of delicious Cocomalt at Booth No. 43.

Cocomalt is refreshing, nourishing and of the highest quality. It is fortified with Vitamins A, B_1 and D; Calcium and Phosphorus to aid in the development of strong bones and sound teeth; Iron for blood; Protein for strength and muscle; Carbohydrate for energy.

Booth 44

THE LAKESIDE LABORATORIES, INC.

Milwaukee, Wisconsin

The intensive research and thorough control procedures applied to Lakeside medications assure the physician of their safety and dependability.

The continued progress in these fields which is especially important in the manufacture of ampule medications characterizes the program of the Lakeside Laboratories, Inc.

Further developments in research will be illustrated and members of the research staff will be in attendance.

Booth 47

JOHN WYETH & BROTHER

Philadelphia, Pennsylvania

You are cordially invited to visit Booth No. 47, where John Wyeth & Brother will exhibit the following pharmaceutical specialties:

Amphojel—Wyeth's Alumina Gel for the management of peptic ulcer and hyperacidity; A-B-M-C Ointment—For the relief of arthritic pain; Bepron—Wyeth's Beef liver with iron; B-plex Elixir—Wyeth's Vitamin B complex concentrate; Bewon Elixir—Wyeth's palatable appetite stimulant; Kaomagma—Wyeth's magma of alumina and kaolin for the control of diarrhea and colitis; Alulotion—Ammoniated Mercury with Kaolin for the treatment of impetigo; Sulfur Foam—For the modern treatment of scabies.

Booth 49

AMERICAN OPTICAL COMPANY

Southbridge, Mass.

Following its policy of keeping professional men informed about new and improved equipment, American Optical Company extends a cordial invitation to all practitioners to visit its booth at the Indiana State Medical Association's convention where AO will exhibit some of its ophthalmic and medical instruments and equipment.

Trained AO representatives will gladly explain and demonstrate, without obligation, the AO products whose fine workmanship is based on more than a century's experience in the manufacture of scientifically accurate professional instruments and equipment.

CONFERENCE OF INDIANA HEALTH OFFICERS

September 22 and 23, 1941

HURTY HALL, INDIANA STATE BOARD OF HEALTH BUILDING

INDIANAPOLIS

MONDAY, SEPTEMBER 22

9:00 a.m. Registration Begins.
Conducted tours through the new State Board of Health Building, scheduled at 10:00—10:30—11:00 and 11:30.

Opening Session 1:30-5:00 P.M.

1:30- 2:00 Call to Order and Welcome—John W. Ferree, M.D., Director, Indiana State Board of Health.

2:00- 2:30 Greetings from Indiana State Medical Association—A. M. Mitchell, M.D., President, Indiana State Medical Association.

2:30- 3:00 "Your Responsibility in the National Defense Program"—F. V. Meriwether, Senior Surgeon, United States Public Health Service, Fort Hayes, Columbus, Ohio.

3:00- 4:00 "A Malaria Control Program"—Paul R. Slater, M.D., Epidemiologist, Upper Inter-State Malaria Survey.
(General Discussion)

4:00- 5:00 Review of Facilities of the State Board of Health:
Clyde Culbertson, M.D., Chief, Bacteriological Laboratory, State Board of Health.
Thurman B. Rice, M.D., Chief, Bureau of Health and Physical Education, State Board of Health.
B. A. Poole, Chief, Bureau of Sanitary Engineering, State Board of Health.

Evening Session 8:00-9:30 P.M.

Ernest Rupel, M.D., Presiding

Joint Meeting for Physicians, Health Officers, Women's Auxiliary of the State Medical Association and Members of the Indiana Medical Historical Association.

The Story of Indiana Public Health as illustrated by pictures in Hurty Hall—Thurman B. Rice, M.D.

FINAL SESSION—TUESDAY, SEPTEMBER 23

Edmund Van Buskirk, M.D., Presiding

9:30-10:15 "The Status of the Fluid Milk Program in Indiana"—John Taylor, Chief, Bureau of Dairy Products, State Board of Health.

10:15-10:45 "School Employees Physical Examination Act"—George M. Brother, M.D., Chief, Bureau of Local Health Administration, Indiana State Board of Health.

10:45-11:30 "The Trachoma Problem in Indiana"—Robert J. Masters, M.D.

11:30 *Adjournment*

TRAP AND SKEET SHOOT

The trap and skeet shoot will be held at the Capitol City Gun Club, 3200 South Belmont Avenue, at 12:00 o'clock noon, Tuesday, September twenty-third. Traps will be open for practice at 10:00 a. m.

Luncehon will be served in the club house at noon.

Trophies and prizes will be awarded in all classes of skeet and trap.

Members of the Association are urged to make entry in individual events by mail to Doctor H. M. Banks, 1604 North Capitol Avenue, Indianapolis, Indiana. The greater the number of participants known in advance, the greater will be the number and quality of trophies and prizes. Awards will be made at the annual stag party Tuesday evening.

Look for special announcement card for detailed events at the registration desk.

TRAP SHOOT

TUESDAY, SEPTEMBER 23, NOON.

100—16 yd. targets $2.00
3 trophies—Lewis Class.

50—Handicap targets $1.00
Yardage to be determined on the score made in the 100-16 yard event or on A. T. A. average and known ability. If ability is unknown, 20 yards will be assigned. Trophies to first and second high guns.

Grand Trophy High Over All Trap and Handicap

SKEET TOURNAMENT

20-gauge, 28 gauge and 410 gauge, 50 targets.. $1.00
3 trophies—Lewis Class.

All bore—50 targets $1.00
3 trophies—Lewis Class.

Grand Trophy High Over All at Skeet

SHOOT TO BE HELD AT THE CAPITOL CITY GUN CLUB, 3200 BELMONT ROAD

Proceed Southwest on Kentucky Avenue, which is U. S. 67, from the center of the city to intersection of Belmont Road. Turn left, cross road parallel to U. S. 67, and proceed south to sign marking Gun Club site by city incinerator and Dog Pound.

If enough reservations are made by post card prior to September 20, a real luncheon will be served at the Club House of the Capitol City Gun Club; otherwise, the usual sandwiches and soft drinks will prevail.

Send postal card indicating reservations to: Dr. H. M. Banks, 1604 North Capitol Avenue, Indianapolis, Indiana. Also indicate in what parts of the program you desire to participate. If you want a real luncheon, say so. If you don't then say so.

This should be a good shoot if all will turn out and participate. **It depends on you!!!** Plenty of prizes.

PROPOSED CHANGES IN BY-LAWS

Amendment to By-Laws, Chapter X, Section 1:

Proposed change to Section 5, Chapter X, of the By Laws of the Indiana State Medical Association (suggested addition is italicized):

"Sec. 4.—Each county society shall be judge of the qualifications of its own members, but, as such societies are the only portals to this Association and to the American Medical Association, every reputable and legally registered physician who does not practice or claim to practice, nor lend his support to, any exclusive system of medicine, shall be entitled to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every physician in the county to become a member.

"Sec. 5.—Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council, and its decision shall be final *as to his fitness to remain or to become a member of the Indiana State Medical Association. If declared eligible, the physician then may apply for membership, without the further consent of his local county society in any county society under this Association's jurisdiction, and thus have continued or restored to him the benefits of membership in the Indiana State Medical Association and the American Medical Association.*"

(THIS IS TO BE CONSIDERED FIRST BY THE COUNCIL.)

Amendment to By-Laws, Chapter VIII, Section 1:

"The following named committee to be inserted after the words, 'A Committee on Public Relations':

"A Committee on Physical Therapy."

ANNUAL BANQUET

MICHAEL "MICKEY" MacDOUGALL WILL BE ONE OF THE GUEST SPEAKERS AT THE ANNUAL BANQUET

Mickey is an authority on all forms of crooked gambling—cards, racing, dice games, lotteries—and is known as the man with the fastest fingers in the world. He has exposed more than 200 professional card cheats during the last twelve years; he has uncovered scores of gambling rackets and has been instrumental in the apprehension of card sharps in hotels, gambling casinos, bridge clubs and on transatlantic liners.

7:00 p.m., September 24, 1941, Scottish Rite Cathedral

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis

Editorial Board. Term Expires
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943

SEPTEMBER, 1941

Editorials

OUR PRESIDENT

Albert Melvin Mitchell has spent his entire life in the Hoosier State. Born in Terre Haute some fifty-two years ago, he has lived in that city since the date of his birth. His early education was obtained in the Terre Haute public schools where he graduated from Wiley High School in 1908; five years later, he received his medical degree from the Medical Department of Louisville University.

In 1918 Dr. Mitchell married Miss Ruth Mathilda Schaal of his home town. Later on, during the World War, he served for more than two years as a Lieutenant in the United States Navy Medical Corps.

"Mitch," as he is universally known throughout medical Indiana, long has been active in organized medicine. For some twenty years he has served his local society as its secretary, and he served as president of that body in 1925; he also was president and secretary of the Terre Haute Academy of Medicine, and is a past president and an active member of the Aero Medical Association of the United States. He is a member of the editorial board of *The Journal of Aviation Medicine.*

He has served as an alternate delegate to the American Medical Association over a period of years and for a long time was chairman of the Indiana Association's Committee on Secretaries' Conference.

Dr. Mitchell is credited with having much to do with bringing Mr. Albert G. Milbank, of New York City, head of the Milbank Foundation, to Indiana for a meeting of the Secretaries' group. It will be remembered that the Foundation exhibited a lively interest in socialized medicine, chiefly through the efforts of its executive secretary, John H. Kingsbury. After Mr. Millbank had listened to the presentation of the subject of the regimentation of medicine, both of Indiana and out-of-state speakers of note, he addressed the conference and in that address made it unmistakably clear that so far as he was concerned the Foundation was through with the "noble experiment."

"Mitch" has made good as "head man" of the Indiana medical profession; he has given generously of his time, has traveled to every section of our state, has addressed innumerable groups of lay folk as well as medical groups. He may well feel, when he quits the onerous duties as president of one of the outstanding state medical organizations of the country, that his work has been well done, and that he has deserved due acclaim from his host of friends in Hoosier Medicine.

THE MANAGEMENT AND TREATMENT OF TUBERCULOSIS

Everyone knows that a combination of factors have created considerable progress in curbing pulmonary tuberculosis and lowering its mortality rate about 75% since the turn of the century; still, 60,000 people die each year in the United States as a result of pulmonary tuberculosis. Two of these factors are the unexplainable general decline in the mortality rate beginning in 1900, and the progress made in the use of collapse therapy.

Many believe that our present methods of treatment are sufficient to completely control the disease. Dr. Henry Chadwick stated in a recent article that if the average decline of the last two decades can be maintained, the death rate from pulmonary tuberculosis would be 32 per 100,000 in 1950, 21 in 1960, 14 in 1970, 9 or 10 in 1980, and "the bells that ring in the year 2000 may sound the death knell of the tubercle bacillus." To continue our progress will entail still more intensive efforts and a closer cooperation of all anti-tuberculosis groups.

It has been stated that if all the patients with positive sputa were found and if all of them were isolated from society, tuberculosis soon would be eradicated. The control of leprosy by the isolation of all infected patients is a good example of this method of treatment. Pulmonary tuberculosis is not so easily recognized, however, and our progress must develop through other forms of treatment. The finding of all cases, with particular stress on the finding of the early and minimal cases, has been the slogan of anti-tuberculosis workers for several years. After the discovery of pulmonary tuberculosis, the proper management and treatment of the patient is important.

No greater skill is required in the art and science of medicine than the proper supervision of pulmonary tuberculosis from its inception to its healing.

The treatment of the disease is not enough. The patient must be treated in mind and body; all activities must be supervised and regulated for the life span of the patient.

Rest is still the mainstay of our treatment, and all other measures, such as diet, heliotherapy, psychotherapy and fresh air might be considered supportive measures. All things being equal, the patient will do better in a tuberculosis sanatorium than he will at home. The association with fellow patients and the routine of sanatorium life greatly aids in obtaining the desired physical and mental rest. Under constant scrutiny of experienced staff physicians, the patient is closely observed and the type of treatment best suited to each particular case is applied or changed as circumstances dictate.

The greatest strides in treatment have been in the field of collapse therapy. Artificial pneumothorax, in the hands of experienced physicians, is one of the simplest and most expedient of the collapse measures when there is a free pleural space. Serious complications, such as empyemeta and bronchiopleural fistula, may occur if pneumothorax is maintained when the resulting collapse is inefficient because of adhesions suspending the lung. As soon as pneumothorax has proved unsatisfactory and the lung cannot be freed from complicating adhesions, the lung should be re-expanded and some other form of collapse therapy instituted. Frequently after air is injected into the pleural space, the diseased portion of the lung is suspended by fibrous string-like, band-like or fan-shaped adhesions which prevent the desired degree of collapse. In a relatively small percentage of cases, an intra-pleural pneumonolysis can be done. This frees the lung and thereby changes an incomplete pneumothorax into a complete one. When it is doubtful whether or not adhesions can be severed, the patient should be given the benefit of a thoracoscopy. In many cases, this is the only means of determining whether or not an attempt should be made to sever the adhesions. Failure to do so frequently results in necessity for a thoracoplasty at a later date.

Though the crushing or removal of the phrenic nerve, causing a paralysis of the diaphragm with its associated resting and relaxation of the lung, is not as popular as formerly, it still is a valuable aid in controlling a tuberculous infection. Experience has taught us that the removal of the phrenic nerve, which results in a permanent paralysis of the diaphragm, is ill advised, as the permanent reduction in vital capacity may be an obstacle to the induction of some other form of collapse therapy necessary to control a new tuberculous lesion occurring at a later time. Simple crushing of the nerve accomplishes the same result and permits a period of observation by the attending physician. If, after the function of the diaphragm returns, a longer period of relaxation of the lung is desired, the procedure can be repeated.

The thoracoplasty remains the old standby for the treatment of far advanced cases of pulmonary tuberculosis. The surgical technique has improved and the scope of the operation has been broadened considerably since this operation was first introduced by Sauerbruch. This again causes a permanent irreversible collapse of the lung and, therefore, as much normal lung should be conserved as possible. It is better, however, to collapse a portion of the normal lung rather than to leave a portion of the diseased lung uncollapsed. In some cases it is advisable to resect the angle of the scapula rather than to resect another rib to gain the desired collapse. Patients that are not the best surgical risks but would have a chance for recovery with a thoracoplasty should not be denied this form of treatment even though it may increase the surgeon's mortality rate.

Enough time has not elapsed to evaluate the importance of extra-pleural pneumothorax in the field of collapse therapy. The indications are very limited and must not be stretched if serious complications are to be avoided. In properly selected cases, this form of surgical collapse is a safe and apparently a valuable aid in the treatment of pulmonary tuberculosis. Other means of resting the lung, such as scalenotomy and intercostal neurectomy are not so widely used and will only be mentioned here. The Monaldi cavity drainage is used with some success in decreasing the size of pulmonary tuberculous cavities; however, it is not a curative procedure.

Bronchoscopy has increased our knowledge and understanding of tracheo-bronchial tuberculosis in the past few years. It is the only means of diagnosing early tuberculous involvement of the tracheobronchial tree. The seriousness of this condition and the very high mortalilty rate associated with it is not fully realized even at this time.

The management and treatment of tuberculosis should only be attempted by physicians experienced in the treatment of this disease. The failure to abandon an unsatisfactory form of treatment or to institute the proper form of treatment at the right time may deny the patient his opportunity for recovery. This results in a catastrophe to the patient and is an injustice to the medical profession in general.

MEDICAL AID TO REGISTRANTS

The reluctance of men unfit for military service to seek medical aid has caused Colonel Samuel J. Kopetzky, chief medical officer of the New York City Selective Service, to recommend a campaign to encourage treatment. Colonel Kopetzky reported that a two-month experiment had been made by Selective Service in the area of a local board in Queens County (New York) where it was made possible to help rejected registrants to obtain medical aid easily for curable defects, and *there was no marked response!* This will bear out the contention of the organized medical profession that many per-

sons would refuse the benefit of medical care even if it were placed upon their doorsteps.

Colonel Kopetzky points out that more positive methods are necessary. "In acute illness, everyone seeks relief. But during the after-effects, where the affliction is not disabling and if employment is still possible, reluctance has been the rule. What defective registrants do not realize is that, with advancing years, their unfitness swiftly increases." He recommends that at each local board office there be placed a volunteer social worker whose duty would be to make contact with the registrants classified in classes 1-B and 4-F, and to determine whether or not the rejected registrant will accept remedial therapy, whether he is able to employ a private physician and, if not, whether he will make use of hospitals which have extended their facilities for this work; if remedial therapy is refused, the social worker is to determine if possible the reasons why the registrant refuses to accept treatment.

Dr. Kopetzky notes that in the age group below 25 years, 18 per cent of the Selective Service registrants were totally disqualified for military duty; in the 26-to-30-year age group, 23 per cent were unconditionally rejected; and in the 31-to-35-year section, 29.2 per cent were found unfit for any sort of military duty. He says, "If the age-rejection figures noted in New York are a fair sample of what is being uncovered throughout the country, then it must be evident that this sample finding is important to the employment problem. With advancing age, the handicap due to physical defects increases, and one has a right to assume that eventually the man thus handicapped drops from employment and in the end becomes one of the group of unemployables."

There is an old saying about leading a horse to water. . . . Undoubtedly some of these men prefer to keep their defects and avoid military service. Can they be forced to accept corrective measures? We wonder.

PRESCRIPTION DECADENCE?

Rather often do we note references in medical literature to a decline in the art of prescription writing, some writers making so bold as to aver that the modern medical school graduate knows little about therapeutics and that when he essays the writing of a prescription he too often makes an abject failure of it.

A recent statement in the *Rocky Mountain Medical Journal* was that "A physician's inability or disinclination to write a reputable prescription is a sign of therapeutic decadence." In *The Journal of the Medical Society of New Jersey*, for July, appears an article, "The Doctor as a Prescription Writer," by A. P. Leighton, secretary of the Board of Registration in Medicine of the State of Maine. Dr. Leighton begins his somewhat caustic commentary with the statement, "We certainly agree that the Doctor of Medicine who graduates today is a far better man in theory, at least, than was he who came into the field shortly after the turn of the century. It is axiomatic, however, that the present-day graduate lacks much of the practical knowledge that was ours, especially in the administration of drugs and medicines as therapeutic agencies." He quaintly observes that the graduates of his day *could* write a prescription in Latin form correctly and that *they knew* of the existence of a National Formulary and a Pharmacopeia; he seems to doubt that the modern graduate knows much about either of these two standard volumes or that he can write a prescription in Latin.

It seems that Dr. Leighton, in his duties as a member of the Board of Registration in his home state, has occasion each year to prepare the questions in materia medica and therapeutics for their annual examination. He cites numerous of these questions as being among those propounded at their last examination, quoting many of the answers as recorded by those taking the examination. Many of these answers are ludicrous in the extreme, many show a woeful lack of knowledge of the principles of therapeutics and Dr. Leighton declares that very few of those taking the examination were able intelligently to write a prescription.

For several years, while a member of the Indiana State Medical Board, during which time a part of our duties was the preparation of questions along therapeutic lines, we made observations similar to those reported by Dr. Leighton. Recent graduates seemingly had little knowledge of pharmacology, a subject in which we were drilled for one whole year while in medical school. The graduates of that day were expected to know the derivation and method of preparation of the more commonly used drugs, together with the dosage of their various compounds. We agree with Dr. Leighton that much of the lack of knowledge of drugs as exhibited by your younger men is due to modern pharmacy. New medicinal products and new biologicals are being created every day; they are so numerous that our Council on Pharmacy and Chemistry is hard pressed to keep up with them.

The trained but glib salesmen who continually call at our offices are adept in the presentation of their wares; they leave samples together with plenty of literature much of which is worth reading, too.

Our druggists stock these preparations, and it is much easier to write a prescription calling for a preparation under a trade name than it is to rack our brains to write a *real* prescription, so we get out of the habit of writing *prescriptions*, if ever we knew how! Now, with the advent of chemotherapy, when almost everybody is using some form of the sulfanilamide group for about every illness that comes along, this formal prescription business received another jolt.

We are not condemning pharmaceutical houses and those who prepare our biologicals, for we need these better-class groups. The fault, if there is a fault, lies within the profession which apparently is neglecting the study of drugs, and is prone to take the easy road when writing a prescription. The younger man of medicine would be utterly confounded were he to attempt the prescribing and preparation of medicine for a patient from the stock room of a country physician of twenty years ago!

TRAFFIC PROBLEM CONTINUES

Governor Schricker has released the report of his co-ordinating safety committee for the first half of the current year. This report shows an alarming increase in the number of automotive fatalities within the state. The increase amounts to a total of 18 percent during this period. When one considers that for some reason the death rate is higher during the last six months of any one year, there is much to think about.

The National Safety Council, in a recent bulletin, declares that similar conditions existed in the January-June period throughout most of the country, all of which adds to the problems confronting the legislative and enforcement groups. From the earliest days of the automobiles, there has been special legislation regarding their use, and in recent years the average state legislature finds its "bill hopper" clogged with measures seeking some method of stopping this wholesale slaughter.

"Rural deaths are running much higher than urban fatalities, with a ratio of 60 to 30 for June, 1940, and 70 to 20 for June, 1941," says the report. There were 259 persons killed as a result of collisions between cars, and 158 pedestrians were killed in the six months' period. Fifty-seven deaths resulted from railway train collisions, 42 from the cars striking fixed objects, and 11 were killed while riding bicycles.

Among the larger cities, Evansville had the lowest automotive death rate, followed in order by Fort Wayne, Indianapolis, South Bend, and Gary. In the smaller communities, Michigan City (in the 25,000 population group) came through without a single fatality in the period, as did Vincennes in the 10,000 population group.

Counties reporting no fatal accidents of this sort are Floyd, Dubois, Jefferson, Owen and Switzerland. Certain other communities, notably Hammond and East Chicago, have not fared so well in this regard.

The problem is not only acute, it is a growing one. State and city police officials are agreed that too many incompetents are driving cars about the state and country. Here in Indiana there are practically no restrictions on the matter of issuing driver's licenses in the adult group. (One Indiana city is making a change in certain of their traffic lights in order that there may be no confusion to color blind folk. Many authorities, it seems, feel that color blindness should not debar one from getting a license, but we do not care to discuss that point.)

There are far too many junk cars on the streets and highways, and it is said that the owner of a junk car has less regard for the rights of others than he would have were he driving a car of some value. A friend recently remarked that when it was a question of who had the right of way at an intersection, he never disputed with the driver of a "jalopie," he let the jalopie-driver have it.

A collision and property damage insurance requirement would, of course, check many of these evils; the chronic "always-in-trouble" driver would, in time, be unable to get such insurance and many of the old cars now seen on the highways would be relegated to the junk heap.

We offer no real solution to the problem; our purpose is to aid in publicizing the bare, stark facts of the matter to the end that some day there may be a popular demand that something drastic be done about it. We cannot go on and on, unnecessarily killing thousands of people every year. The widening of the highways and the creation of speed lanes does not seem to have been of much help—we still have with us the road hogs and the careless, incompetent, irresponsible drivers.

The courts seem to be waking up, though there are still too many suspended sentences following convictions, and this applies in particular to those charged with drunken driving. We have no sort of brief for this dangerous character, but in many courts he seems to get off with a suspended sentence. A driver convicted on this count should not only serve a husky jail sentence, but his license should be revoked, right now!

Editorial Notes

Along about the time we gather at Indianapolis for our 92nd convention, Dr. W. T. Lawson, of Danville, will be celebrating his 92nd birthday. It goes without saying that he will be on the job, representing the Hendricks County Medical Society, for which organization he has served as secretary for more than fifty years. Dr. Lawson never misses a state meeting. He arrives with the early birds and remains until he is certain that the show is over and that a good job has been done.

Governor Schricker is to be commended for his prompt action regarding the marijuana eradication program for Indiana. It will be remembered that the recent session of the Indiana General As-

sembly failed to appropriate funds for this work during the next two years and for a time it was feared that the good start made in this campaign during the past few years would come to naught. However, the head of the State Police department has been ordered to assign men to this work. Formerly this supervision was under the direction of the State Board of Health.

A news release from the Australian Associated Press says that kangaroo tails have an unique value to medicine. Medical research workers in Brisbane have discovered that tendons from the tails of kangaroos have special value in certain operations and in orthopedic surgery. Although Australia is the world's largest producer of catgut (which is obtained from sheep), kangaroo tail tendons are stronger and are replacing catgut in certain operations.

Here's one that takes you back to the medieval days when the common drinking cup was not considered *de trop*. The Chicago *Tribune*, in an editorial, "The Great Bucket and Dipper Case," satirizes the objections raised by an Illinois railroad to an order issued by the Illinois Commerce Commission to the effect that henceforth said railroad must replace water buckets and dippers in the cabooses on its line. Shades of John N. Hurty! What a mess such a complaint would have aroused back in his day!

How much attention do you pay to the new "all-wool-and-a-yard-wide" label attached to the woolens you buy? A Federal law now in effect requires the manufacturer of woolens of any sort to attach thereto a label setting forth the exact woolen content of the material. Further, it must state whether it is "virgin" or "processed" wool. A local clothing man remarked the other day that with new goods he had no trouble, since the proper tag accompanied all new purchases, but that certain stocks on hand were without a pedigree, hence the best he could do was to state that the exact contents were unknown.

This number of The Journal carries the complete program for the ninety-second convention of the Indiana State Medical Association, together with reports of officers and committees. All general and section meetings, as well as the House of Delegates session, will be held in the Claypool Hotel, general headquarters for the convention.

The annual banquet will be held at the Scottish Rite Cathedral on North Meridian Street. Ample arrangements have been made for the accommodation of fraternity, club and other get-together luncheons, it being only necessary to contact the chairman of that committee. Our annual conventions have come to be so largely attended as to make it quite a problem to care for all who come and to provide sufficient meeting places for the various group and general meetings. We would again remind the House of Delegates that in selecting the host-city for next year they should have in mind the hotel and meeting place requirements.

A few months ago the state press carried the story of the death of an Indianapolis couple, caused by cyanide gas which was used in the fumigation of an apartment in that city. The head of the fumigating company was duly charged with something or other and stood trial, resulting in his being discharged, all because there was no law or ordinance that covered the case. It does seem that such things should not happen; anyone engaged in the fumigating business certainly knows the highly dangerous character of any form of cyanide gas and should be legally bound to take all due precautions.

It is reported that Mayor Reginald Sullivan of Indianapolis has declared that next winter that city will be practically 100 per cent smoke-free. This news should come to the residents and winter visitors as a welcome bit of good cheer. For some years past Indianapolis has vied with Pittsburgh, St. Louis, and Louisville for the doubtful honor of having the heaviest "smog." St. Louis emerged from the smoke screen some time ago; her winter sky line is about like that of other seasons. We would welcome a winter visit to Indianapolis when we could see the lady on the Circle Monument at a distance of six to eight blocks. At times the monument itself has been hard to find!

Monument to American Medicine—Outside a famous Southern city there is an old cemetery where the dead of long-past generations lie buried. There are 1,396 graves in that cemetery—and in only four cases were the persons buried there more than 45 years old at the time of death. In other words, only one-fifth of one per cent of them reached what in these modern times is regarded as the prime of life.

There could be no more graphic illustration of what American medicine and American medical science have done for the health of America. One hundred and fifty years ago the life expectancy of man in the United States was 35 years. Today it is 62 years.

That has been the result of endless striving, under a free system of medicine which gives every doctor, every scientist, the chance to achieve to the very utmost of his abilities and energies. Re-

searchers in great laboratories—specialists in big cities—country doctors in villages and hamlets—all have contributed. They have spent their lives working to make the lives of others longer, fuller, happier.

In those hundred and fifty years typhoid fever has almost disappeared; smallpox has been subdued; diphtheria has been practically conquered; tuberculosis has been robbed of much of its terror. The monument to American medicine is written in the standards of health of the American people—standards which are not equaled anywhere else on earth.—*Terre Haute Star, June 3, 1941.*

We've heard much about the tall corn out in Iowa, "where it grows tall," as the State College song goes; we, of course, know all about Indiana corn, long-time national champion corn. But if all reports are true, down in Posey county there is corn the like of which mortal man never saw before. C. L. C., in his delightful column in the New Harmony *Times*, in discussing Posey county corn, says, "Most of the corn stalks are growing so tall this season that it's got the farmers bothered. Oscar Watson has some stalks that he has to tie a red lantern on every night to warn the airplanes!" Must be so, because we have been reading that column for many years and never have caught C. L. C. in a deviation from the truth.

We really are serious in advising those planning to attend the September convention, in Indianapolis, to secure their hotel reservations at once. Not for twenty years or more have our hotels enjoyed a near-complete guest registration such as prevails at the present time. We anticipate a record attendance at this meeting and while every one registering will find *some* place to rest his weary head when night comes, it is just as well to be fortified in that regard by having an advance registration. At the Cleveland meeting of the A.M.A., hundreds were unable to get hotel reservations of any sort, and the attendance at that session was cut down considerably as a result. You need a few days off, days in which you will meet all the old timers, and when you can brush up on the various phases of medicine and have a good time in general.

One of our larger county medical societies has been making strenuous efforts to break up a "quick marriage license" combination which seemed to involve a county official, an approved laboratory, and a physician or two. For a time it seemed that the matter was under control but it broke out again and the local press made a great fuss about it, whereupon said county official really "stuck his neck out." He had not been mentioned in the press story but he immediately rushed into print with a statement that was not complimentary to the medical profession. We are advised that a new setup has been concocted, whereby licenses may be had with a minimum of delay, despite a recent ruling of the Indiana State Board of Health that laboratory reports must not be immediately available. There seems but one way to handle such situations, and that is to revoke the approval of the offending laboratory, a procedure that is quite effective, as was proved in another instance.

Since the early days of the 1930 depression we have been accustomed to hearing tales of "relief," some of our larger counties having each year expended stupendous sums in this field. Even now, when nearly every one who cares to do so can find worth-while employment, most of our counties continue to have relief problems in some measure. When we read that Hancock County, in which Greenfield is the county seat, is wholly without a relief problem, we heave a sigh and wonder. This county, as you will recall, was the home spot of the beloved James Whitcomb Riley. Even WPA workers are now unknown in that county; every body has some sort of a job and is self-supporting. We can hardly believe that such a state of affairs exists here in our Hoosier state, but they say it is so; hence, we are compelled to believe it. More power to Hancock county! May her ninety-one sister counties follow her lead!

What will Milady do about silk hose? In a short time this item, once regarded as a luxury but now a commonplace purchase for most every woman, will be off the market. We recall the days when King Cotton supplied practically all the material for hosiery; later on, lisle became the vogue. Silk stockings became more and more dainty until now one has to take a second look to determine whether stockings are being worn at all! But the hose question is only a minor incident; well informed folk tell us that we haven't seen anything yet in the way of restrictions in the manufacture of the various things that we have come to regard as essential to our daily existence. The general cost of living, already on the way up, has by no means reached its peak and soon there will be noted a short market in many articles in daily use. Yet official Washington says we are not at war with any nation!

ANNUAL REPORTS OF ALL COMMITTEES ARE PUBLISHED IN THIS ISSUE. READ THEM.

President's Page

Dear Doctor:

In the July, 1941, issue of War Medicine is an editorial "A Procurement and Assignment Agency" which will be well for you to digest. I quote the following from this editorial:

"At the Annual Session of the American Medical Association held in Cleveland in June, 1941, the Committee on Medical Preparedness brought to the House of Delegates a resolution urging the establishment of a central agency, to be known as the Procurement and Assignment Agency, which would enable the government to select more promptly and more wisely those physicians necessary for military, civilian and industrial service."

"Subsequently this resolution was endorsed by the Health and Medical Committee, which has been assigned to the Coordinator for Health Welfare and Related Activities."

"Already it is apparent that the procurement and assignment of physicians in the United States for some of the innumerable calls which are likely to be made on them in the near future are going to be a task that will take the best available information and organizational ability. Apparently the needs for medical personnel which must be supplied are about as follows:

1. The United States Army Medical Corps and the United States Army Medical Reserve Corps.

2. The United States Navy Medical Corps and the United States Navy Medical Reserve Corps.

3. Physicians for the United States Public Health service.

4. Physicians for Selective Service Administration, including local boards and appeal boards.

5. Physicians for civilian medical service.

6. Physicians for aid to Britain, requested by American Red Cross.

7. Physicians for industrial medicine.

8. Physicians for service in rehabilitation.

9. Physicians for civilian defense organization.

10. Physicians for state and county medical and public health organizations.

11. Physicians for medical divisions in other government services."

"If such an agency is to be of the greatest possible service, it should be organized and ready to function before the moment when it is most needed. It would be well if the National Administration could give prompt consideration to the desirability of establishing an agency of this kind at the earliest possible moment."

Will see you in Indianapolis at the Claypool, September 23, 24, 25.

Cordially yours,

REGULATIONS AND SUGGESTIONS REGARDING COMPLIANCE WITH PROVISIONS OF RECENT LEGISLATION PROVIDING FOR TESTS FOR CHILDREN OF SCHOOL AGE, AND AID TO THE HARD OF HEARING

Copies of the following rules and regulations have been sent from the office of the Superintendent of Public Instruction to school administrators. The same regulations and specific suggestions have been sent to local public health nurses.

1. Administration of hearing tests.

a. A program of testing should be established in each school unit, keeping in mind satisfactory results and strict economy. For example, an entire county may be able to use one group testing audiometer; or, the services of a speech and hearing clinic from a college or university doing testing work, which would furnish the apparatus, could be secured.

b. Testing done by commercial companies will *not* be satisfactory.

c. If various school units of a county would unite in giving a testing program, an audiometer could be purchased, and the services of one individual, or part time services of some person from an adjoining county, might likewise be secured.

2. Administration of training program.

a. Individuals not already trained but desiring to be eligible will be required to undergo a full training program as rapidly as possible. Corresponding to the foregoing attitude, all teachers, nurses or untrained persons desiring to secure a permit to do testing will be required to qualify as follows:

(1) A temporary permit for this year, 1941-1942, will be granted teachers who hold health licenses.

(2) A permit may be renewed on completion of the following courses:

(a) Required courses:
Lip reading, 2½ semester hours.
Psycho-physics of sound and audiometric measurements, 2½ semester hours (or equivalent training which included supervised audiometric testing and theory of sound phenomena.)

(b) Electives (one of the following)
Anatomy and physiology of hearing and the vocal mechanism.
Phonetics.
Speech Correction.

b. It shall be understood that permits granted are valid for one year but may be renewed upon compliance with any subsequent regulations.

c. Only persons who have been engaged in school work of such nature as would indicate an interest in health, hearing or speech defects shall be eligible to receive permits. In all cases where there is a question or doubt as to eligibility, the opinion of the State Superintendent of Public Instruction shall be final.

d. State teachers colleges shall assist in the administration of this program by offering courses as set out above and further broadening their programs to include a full training program for audiometric measurement, speech correction and remedial services.

3. Administration of remedial facilities.

a. Only those mechanical hearing aids and audiometers bearing the unqualified approval of the Council on Physical Therapy of the American Medical Association should be provided for the hard of hearing.

b. Each case of deafness discovered should be referred first to his family physician who in turn should refer the case to a competent otologist. However, if the family physician does not cooperate in this respect, the case should then be sent directly to the otologist.

c. We advise that the examining technician should confine his attention and activity entirely and only to the determination of the subject's ability to hear or not to hear, and that the matters of differential diagnosis between various types of deafness, recommendations as to the kind of treatment indicated, and the selection of the proper hearing aid should be left entirely in the hands of the consulting otologist.

Annual Convention

Indiana State Medical Association

SEE AND HEAR MICHAEL "MICKEY" MacDOUGALL

Internationally famous Card Detective and author of "Gamblers Don't Gamble." He will give his sensational demonstration of second deals, bottom deals, fake riffles and shuffles at the Annual Banquet—

Scottish Rite Cathedral, September 24, 1941

Indianapolis, September 23, 24, 25, 1941

TWENTY-FIVE YEARS AGO

From THE JOURNAL pages, September, 1916 issue

The Journal carried the announcement and the program for the annual convention of the Indiana State Medical Association, which was held in Fort Wayne, the "Old Triumvirate," Bulson, Porter and Drayer being in charge of arrangements. Headquarters were at the Anthony.

* * *

But two scientific articles appeared in this number, due to the space necessary for convention announcements. H. O. Mertz, then of Laporte, wrote a profusely illustrated article on "Uronephrosis; Its Significance and Detection." Carl D. Lucas, Indianapolis, discussed "The Sequelae of Oral Infections."

* * *

Geo. F. Keiper, Lafayette, was to "head the procession" during the meeting, as president of the Association. (Looking over these twenty-five-year-old pictures of the officers and section heads one is constrained to remark, "My, how those old boys have changed!")

* * *

Editorially, The Journal discussed Infantile Paralysis, and the importance of an early diagnosis in general diseases.

* * *

Committee reports occupied but few pages in this number; as a matter of fact there were comparatively few committees—and many of these committees were of the "paper" sort.

* * *

As was frequently the case, Editor Bulson was quite upset about the Christian Scientists; seems that this group was making a determined effort to ascertain just how the 1917 legislators felt about the requirements for the practice of the healing art in Indiana.

* * *

Among the deaths noted were those of J. C. Carson, Valparaiso, and George J. Cook, Indianapolis. Dr. Carson was one of the pioneer surgeons of Porter county and had died following an operation for appendicitis. Dr. Cook, founder and long-time head of the Department of Gastro-Enterology in what is now the Indiana University Medical School, had a long and distinguished career in his specialty.

* * *

Indianapolis had been having a sweeping scourge of typhoid fever, 435 cases having been reported in August, alone.

* * *

Fountain county commissioners had authorized the expenditure of $30,000 for a hospital to be located at Attica.

UNDER THE CAPITOL DOME

SLAUGHTER ON THE HIGHWAYS

Carelessness, born of war psychology, is blamed by State Police Superintendent Don F. Stiver as one of the causes of Indiana's rapidy mounting highway traffic death toll. In this the Hoosier official agrees with nationally known traffic experts who view the picture on a nation-wide basis.

"People have acquired a devil-may-care, what's-the-use attitude which is reflected in their driving," Superintendent Stiver said. But carelessness is only one cause, Mr. Stiver believes. Another, which also is a result of the war and the American defense effort, is the let-down of day by day safety publicity. Safety stories and even items about traffic accidents and deaths which serve to call attention to the problem have been pushed off the front pages of the newspapers by the war and defense news, he points out. And even when they do make the front pages, their effect is lost by the more interesting war news.

Still another contributor to the highway slaughter, Mr. Stiver says, is the increased traffic. There is more money as a result of defense industries in Indiana, consequently there are more automobiles on the highways. And so there are more accidents. The increase is evident throughout the state, but in defense areas the increase in daily travel is tremendous, he says.

Although the traffic has increased, the State Police Department's available men for traffic duty has decreased by about twenty-five men. This situation results from the necessary assignment of approximately that many men daily to cooperate with the FBI and other agencies in investigations, according to Mr. Stiver. This situation, however, will be relieved when the fifty new men authorized by the 1941 General Assembly are absorbed into the department. They already have been appointed and are to go to work in September.

Drunken driving is not responsible for increases in traffic accidents, according to Superintendent Stiver. The arrest and accident records show no increase in the number of intoxicated drivers involved in the wrecks, he said.

Indiana's traffic deaths increased eighteen per cent during the first six months of this year over the record for the corresponding period last year, according to the Governor's Coordinating Safety Committee. Deaths this year totaled 618 against 522. The six-months' record for 1939 was 430.

The open highway is more dangerous than city streets, the record shows. Rural deaths ran much higher than urban fatalities, with a ratio of sixty to thirty for 1940 in the month of June, and seventy to twenty in June this year. For the first half of 1941 the total was 432 on the open road and 186 in city areas.

A study of the type of accidents in which fatalities occurred showed that by far the greatest number of persons are being fatally injured in collisions between automobiles. During the six months' period, 259 persons met death in accidents of that type. Pedestrians rank high in deaths with 158 killed. Eighty-nine died as the result of non-collision accidents, fifty-seven in crashes with railroad trains, forty-two by having their automobiles strike fixed objects, and eleven while riding bicycles, and one each in collision with an electric car and a horse-drawn vehicle.

Records of past years reveal that the last six months of the year are more dangerous than the first six. Unless a drastic reduction can be brought about, the 1941 accident death record will reach an all-time high, the safety committee pointed out.

James D. Adams, chairman of the State Highway Commission, views the accident record as a challenge for the highway engineers. The commission's records showed a total of 10,440 accidents on state highways in both urban and rural areas. Property damage resulting from these highway accidents amounted to $1,540,132, more than a quarter of a million dollars a month. In addition to deaths there were 5,279 persons injured, the highway commission records showed.

Mr. Adams pointed out that Indiana already ranks high in the development of a modern, safe system of state highways. "The continuous increase in traffic, particularly traffic developed as a result of defense activities, has placed an abnormal strain on many miles of state highways and has resulted in greater traffic safety problems," he said.

The highway commission chairman pointed out that increasing emphasis has been placed on motoring safety through improved design of highways and elimination of all possible hazards through better engineering—a program in which the Indiana commission has taken a leading part for more than eight years. Continuation of this program on a larger scale is being planned by the commission as a contribution to increased safety for the motorists traveling Indiana highways, the extent of the program being limited only by the funds which are available, Mr. Adams said.

MEDICAL EXAMINATIONS FOR STATE FARM RESIDENTS

During the past four years officials of the Indiana State Farm have developed a comprehensive medical, psychological, and educational program for the rehabilitation of the 4,000 young men who are committed to the institution annually, according to Floyd J. Hemmer, superintendent.

A system of complete physical examination and blood tests for each inmate has been developed, and as high as eighteen per cent of the population has been under treatment for syphilis at one time.

More prisoners are handled each year at the State Farm than at any other one of the state's penal institutions. The average age of the inmate group is about 35 years and, the superintendent adds, many of the men enter the institution in very poor physical condition. Nevertheless, the death rate is less than one-tenth of one per cent.

Discussing the development of medical facilities at the institution, the superintendent cites the fact that there has been established a surgery to deal with acute and chronic surgical problems "at no increase over the cost for the occasional emergency operations previously needed."

"Hundreds of major operations including appendectomies and herniotomies have been performed in addition to the newer treatment by injection, of hemorrhoids, hernias, and varicoceles," the Superintendent says. "Despite the extensive utilization of our surgical facilities, with the treatment of serious and acute cases, we are fortunate to report no fatalities to date" (July 15, 1941.)

In developing their program the State Farm officials have followed the thinking of modern penology that the offender must be treated as if he were a sick man and that a very careful study of each individual's problems should be made with the view to getting a diagnosis of the social, emotional, medical, mental, and other difficulties of each. Based on this diagnosis the institution administration plans a program of treatment designed to overcome the difficulties presented by the offender.

A system of expert examinations, called the Classification Program, was instituted. The Superintendent explains the Classification Program as follows:

Each inmate entering the institution is examined by the physician, who reports on the physical and medical condition of the prisoner; the identification officer, who gets the legal record from the FBI and other agencies; the captain of the guards, who reports on the possibilities of the offender's escaping; the record clerk, who accumulates all the information regarding significant social data of the inmate's life; the psychologist, who evaluates the intelligence and the personality of the offender and makes a recommendation for training; the educational advisor, who plans a vocational and educational program for every hopeful prospect.

These experts assemble their reports and meet as the Classification Committee with the Superintendent as chairman. Each inmate is called before the committee and his case is analyzed carefully. The Classification Committee then makes a recommendation as to the program, to be followed during the inmate's stay in the institution. With the guidance of the physician, recommendations for operations or other medical treatment are made.

This committee also makes all recommendations for assignments to work, vocational, and educational training.

"The State Farm is usually thought of as a haven for drunks and ne'er-do-wells," Superintendent Hemmer says. "Few people realize the wide variety of offenders that are confined inside its gates. The frequent visitor to the Classification

meeting is astonished at the number of young men that daily come into the institution to serve varied sentences, very few for alcoholism.

"It is probably not amiss to point out that more young men of Boys' School age come to the State Farm yearly than go to the Boys' School, and that as many men of Reformatory age come to the State Farm as go to the Reformatory," he says.

"One-third of the State Farm admissions are under the age of 30, and for the average year this would mean 1,300 young men. It is important to recognize that these young men need careful training if they are to be dissuaded from continuing in the path of crime. It is for these 1,300 men that the greatest emphasis in the program is being made. We would be overlooking our great responsibility if we were to fail to develop a program for this group of young hopeful and needful offenders," the superintendent says.

Superintendent Hemmer points out that the State Farm receives more than two-thirds of all the commitments of the courts of the state, a total of more than 4,000 annually. "This great group of offenders can be generally characterized as more weak than vicious," he says. "It seems encouraging that more than half of them never offend again to the extent of experiencing further incarceration here or elsewhere."

Deaths

John S. Murphy, retired physician of Sullivan, died at his home there, June eighth.

* * *

John H. James, M.D., of Anderson, died on July seventh, aged ninety. He graduated from the Physio-Medical College of Indiana, Indianapolis, in 1881.

* * *

Charles William Hartloff, M.D., of Evansville, died at his home there August first. Doctor Hartloff was seventy-one years of age. He founded and was the first president of the Evansville Optimist Club. He graduated from the University of Michigan Medical School, Ann Arbor, in 1897.

* * *

William Lee Jennings, M.D., of Indianapolis, died July twenty-sixth, aged seventy-eight. Doctor Jennings was a graduate of the New York University Medical College, New York, in 1888. Doctor Jennings was a member of the Marion County Medical Society, of the Indiana State Medical Association, and of the American Medical Association. He had practiced at Bridgeport and Ben Davis since 1892.

Dwight Mackey, M.D., of Hobart, died on July sixteenth at the age of fifty-seven. Dr. Mackey graduated from the Chicago College of Medicine and Surgery in 1909.

* * *

William M. Walden, M.D., of Newburgh, died at his home July twenty-fourth. He was seventy-nine years of age. Doctor Walden was a graduate of the Louisville Medical College in 1886.

* * *

John C. Sharrer, M. D., of Francesville, died on July twenty-fourth. He was eighty-three years of age. Dr. Sharrer was a graduate of the Kentucky School of Medicine, Louisville, in 1880.

* * *

John G. Barger, M.D., of Indianapolis, died August fourth at his home. Doctor Barger was seventy-seven years of age. He graduated from the Central College of Physicians and Surgeons in 1900.

* * *

Charles R. Applegate, M.D., of New Castle, died in a hospital there, June eighth, after a brief illness. Dr. Applegate was seventy years of age. He graduated from the Kentucky School of Medicine, Louisville, in 1901.

* * *

John W. Clubb, M.D., of Blanford, died at his home there June thirtieth. He was seventy-seven years of age. Dr. Clubb had practiced in Blanford for twenty-four years. He graduated from the Louisville Medical College, Louisville, Kentucky, in 1884.

* * *

John Henry Schuck, M.D., of Colfax, seventy-eight years of age, died August eighth. Doctor Schuck had practiced in Colfax for more than twenty-five years. He was a graduate of The Hospital College of Medicine, Louisville, in 1889.

* * *

Frank R. Doll, M.D., physician and surgeon of Whiting, died at his home in Robertsdale on July twenty-third. He was fifty years of age. Dr. Doll was a graduate of the Rush Medical College, University of Chicago, in 1919. He had practiced in Robertsdale and Whiting for twenty-two years and was the founder of the Whiting Clinic. He served as a member of the Hammond Board of Health, and in 1939 he served as president of the Tenth Councilor District. Dr. Doll was a member of the Lake County Medical Society and the Indiana State Medical Association, and was a Fellow of the American Medical Association.

News Notes

Dr. D. Douglas Odell, of New York City, has become a member of the Garrett Clinic staff.

* * *

Dr. S. S. Frybarger, formerly of Andrews, has moved to Converse, where he will establish his practice.

* * *

The eighth institute on Public Health Education will be held in Atlantic City, N. J., October 12, 13 and 14, 1941.

* * *

Dr. K. L. Kissinger will locate in the office of the late Dr. S. S. Frazier on South Wayne Street, in Angola.

* * *

Dr. D. D. Yoder recently opened an office at Columbus where he will specialize in ophthalmology and otolaryngology.

* * *

Mrs. Anna Berns, wife of Dr. P. C. Berns of Linton, Indiana, died July twenty-sixth of injuries received in an automobile accident.

* * *

Dr. George C. Stevens has announced the opening of an office at 603 Hume Mansur Building, Indianapolis, for the practice of psychiatry.

* * *

Arrangements for the second American Congress on Obstetrics and Gynecology to be held in St. Louis, Missouri, April 6 to 10, 1942, are progessing.

* * *

Dr. A. F. Weyerbacher, clinical professor of urology at the Indiana University School of Medicine, spoke before the Greensburg Kiwanis Club on July eighth.

* * *

Dr. John F. Mills has opened an office in New Castle where he will specialize in ophthalmology and otolaryngology. Dr. Mills has been practicing in Wabash.

* * *

Dr. Carleton B. McCulloch, of Indianapolis, has been named by President Roosevelt as a member of a special committee of forty-five persons to coordinate civilian defense organizations under the leadership of Mayor Fiorello LaGuardia of New York.

Dr. John H. Hewitt who has been manager of the Mudlavia Springs Hotel for several years, has resigned to accept a position at the Marott Hotel in Indianapolis.

* * *

Dr. Donald J. Feerer, of Columbus, Ohio, will take over the office of Dr. Stephen Donovan, of Michigan City, who was recently called for active duty in the U. S. Navy.

* * *

Dr. Mier Bizer and Miss Idell Shepherd, R.N., of Jeffersonville, were married on July twelfth. Dr. Bizer is located at Jeffersonville and has also opened an office in Clarksville.

* * *

Dr. A. P. Hauss, of New Albany, has been reappointed by Governor Henry F. Schricker as a member of the Board of Trustees of Silvercrest, the state's new tuberculosis hospital at New Albany.

* * *

Dr. Reynold Patzer has announced that he will leave his practice at Plymouth and will enter Tulane University at New Orleans, La. Dr. Paul S. Connell, formerly of Millersburg, will take over his practice.

* * *

Dr. Homer B. Shoup, formerly of Greentown, was united in marriage to Miss Dorothy Highfield, of Washington D.C., on June seventeenth at Hillsdale, New York. Dr. Shoup is now located at the Boys Military School at Kent, Connecticut.

* * *

Dr. James H. Stygall, of Indianapolis, has been appointed as chairman of the National Council of Tuberculosis Committee, which was formerly known as the Committee for the Advancement of Tuberculosis Organization in Medicine.

* * *

Active steps are being taken to alleviate the present shortage of qualified professional nurses, Surgeon General Parran has announced. Congress has appropriated $1,200,000 for training nurses for national defense. These funds are being administered by the States Relations Division of the U. S. Public Health Service and will be used for increasing the number of students in basic nursing education programs, in preparing inactive graduate nurses for active duty, and in offering postgraduate instruction in special fields of study.

Miss Gertrude Sellers, daughter of Mrs. C. A. Sellers and the late Dr. C. A. Sellers of Hartford City, and Dr. Herman Hoffman of Indianapolis, were married in Hartford City, August third. They will reside in Indianapolis where Dr. Hoffman is associated with the Emhardt Clinic.

* * *

The seventh annual meeting of the Mississippi Valley Medical Society will be held at Cedar Rapids, Iowa, October 1 to 3, 1941. Headquarters will be the Hotel Montrose. Dr. Harold Swanberg, secretary, W. C. U. Building, Quincy, Illinois, will send a complete program upon request.

* * *

The fourth annual essay contest of the Mississippi Valley Medical Society has been won by Dr. Robert B. Lewy, Chicago; second place was taken by Dr. George A. Skinner of Berkeley, California, and third place by Dr. Arthur Bowen of Los Angeles, California. The $100 cash prize was awarded Dr. Lewy for his paper, "Comparative Studies in Pain Control."

* * *

The Biological Photographic Association, an international group of photographers in the natural sciences, will hold its eleventh annual meeting in the Hotel Buffalo, Buffalo, New York, September 11 to 13, 1941. For complete information, write to the Secretary of the Biological Photographic Association, University Office, Magee Hospital, Pittsburgh, Pennsylvania.

* * *

All officers and employees of the Indiana State Soldiers' Home near Lafayette have been reappointed for four-year terms by the board of trustees recently appointed by Governor Schricker. Present officers of the home include Irvin C. Bauman, commandant; Fred S. Patterson, adjutant; Dr. A. W. Hadley, chief post surgeon, and Dr. Whitfield Bowers, assistant surgeon.

* * *

The annual report of the Indiana Women's Field Army of the American Society for the Control of Cancer has been made by Mrs. Isaac Born, state commander, and Dr. Chester A. Stayton, co-chairman. The spring drive for memberships brought in a total of $8,533.93 of which $2,560.18 was sent to the National Society. A summary of the work done during the year is reported and includes the dissemination of literature (200,000 pieces); purchase and display of "Latex-model" exhibits at the Indiana State Fair, fourteen county fairs and in cooperation with small exhibits and posters at various health functions; forty lectures by physicians of the Indiana State Medical Association and more than one hundred talks by officers and workers of the Field Army; and radio publicity.

The following have been appointed to the editorial board of the *Illinois Medical Journal:* J. H. Hutton, F. H. Falls, J. J. Moore, E. M. Miller, C. H. Mayer, H. S. Gradle, P. H. Kreuscher and H. Culver, all of Chicago. Harold Camp, long-time secretary of the Illinois State Medical Society, will continue as editor, succeeding the late Charles J. Whalen. The new board has announced some changes in editorial policy.

* * *

PELOUZE AWARD

The American Neisserian Medical Society announces an annual prize of one hundred dollars, to be known as the *P. S. Pelouze Award*, to be presented to the person under thirty-five years of age who, in the opinion of the Committee of Awards, has made the outstanding contribution to the control of gonococcal infections during the preceding year. Nominations for the award should be sent to the secretary not later than March thirty-first of each year. The winner will be announced at the subsequent annual meeting of the Society.

* * *

Dr. Arthur E. Guedel, former Indianapolis physician and now a resident of Los Angeles, California, has been awarded the Hickman Medal by the Royal Society of Medicine, London. The medal is awarded to Dr. Guedel for "original work of outstanding merit in anesthesia." The Bulletin of the Los Angeles County Medical Association for July 17, 1941, carries a large picture of Dr. Guedel together with photographs of the medal and an extensive article concerning the award. Dr. Guedel's many Indiana friends will be pleased to learn of the honor which has been bestowed upon him.

* * *

One hundred thirty-four new public health workers have been assigned to state and local health departments throughout the nation by the U.S. Public Health Service to assist states in coping with special public health problems created by the national defense program. Congress has authorized the continuance of emergency defense and sanitation activities of the Public Health Service, and in addition has provided funds for training engineers for malaria control work in southern states. Orientation courses of one month were begun April 7, 1941, at Bethesda, Maryland, to familiarize new personnel with policies and activities of the Public Health Service. Industrial hygiene, venereal disease, environmental sanitation, public water supply, sewage disposal, malaria control, restaurant sanitation and communicable disease control instruction is also given. Upon completion of the course, the new employees are transferred to the states upon request of state health departments and in accordance with the relative public health needs of the defense areas.

Lieutenant-Colonel Robinson Hitchcock, state Selective Service director, has urged medical students and internes to obtain commissions in the Medical Reserve Corps by application to the commanding officer, Fifth Corps Area, Ft. Hayes, Columbus, Ohio. He said, "Doctors and internes eligible for commissions who are placed in Class 1-A by their local boards and fail to take advantage of the opportunity to be commissioned will be inducted for Selective Service military training." Col. Hitchcock pointed out that internes can receive commissions as first lieutenants in the Medical Corps, while students will be placed in the Medical Administrative Corps as second lieutenants and should not be called to duty until completion of their schooling unless an emergency arises.

* * *

DRUGGISTS SPONSOR RADIO PROGRAMS

From September 15 to 28, inclusive, WLW radio station will broadcast "Keep Healthy" announcements twice daily, the scheduled hours being 8:30 a.m. and 10:30 p.m. eastern standard time. The Professional Relations Committee of the Indiana Pharmaceutical Association is cooperating with WLW in publicizing these announcements in the hope that members of the medical profession will listen in and send their comments regarding the programs to Mr. Henry W. Heine, Chairman, Professional Relations Committee, Indiana Pharmaceutical Association, c/o Purdue University School of Pharmacy, Lafayette, Indiana. The announcements are sponsored by the druggists of Indiana, Ohio, Kentucky, West Virginia and Michigan.

* * *

Ohio joins the rather long list of states requiring a premarital examination by licensed physicians, their law having become effective as of August first; hence, every border state of Indiana now has such a law. The idea seems to be gaining favor, as the following named states now have similar laws, and it is expected that most if not all of the remaining states will "line up" in the near future: Alabama, California, Colorado, Connecticut, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, North Carolina, North Dakota, Oregon, Pennsylvania, New Hampshire, New Jersey, New York, Rhode Island, South Dakota, Virginia, West Virginia, Wisconsin and Wyoming. The enforcement of these laws is somewhat of a problem, as is being experienced in Indiana and some other states. We believe that a strict surveillance of the "approved" laboratories, seeing to it that no cheating is done, will prove to be the best method of control. Some of our county clerks who have been waxing fat on the perquisites of the marriage license rackets are slow to give up; they scheme and connive in every conceivable manner to evade the law, taking care that such evasion does not get them into legal difficulties.

At the official opening of a new Medical Memorial Library at the St. Elizabeth Hospital, Lafayette, on July eighth, a large bronze plaque was unveiled and dedicated in honor of the memory of several former Lafayette physicians who in years past were members of the St. Elizabeth Hospital staff. The following names are inscribed on the plaque: Doctors Robert M. O'Ferrall, William S. Walker, John C. Webster, George F. Keiper, William R. Moffitt, George F. Beasley, George K. Throckmorton, Oliver P. Terry, Charles C. Driscol, Frank B. Thompson, George R. Clayton, R. B. Wetherill, Edward C. Davidson, and Furman L. Pyke. The addition of the library was conceived by the late Dr. William R. Moffitt who willed his valuable medical works and a sum of money to the hospital for the library now established.

* * *

DR. LAWSON OLDEST COUNTY SECRETARY

Dr. W. T. Lawson of Danville, Indiana, will celebrate his ninety-second birthday, September third, and he plans to attend the ninety-second annual meeting of the Indiana State Medical Association this month. Dr. Lawson has been secretary of the Hendricks County Medical Society continuously since 1879 with the exception of three years when he served as president of the society. Fifteen years ago he was made life secretary of the organization. Dr. Lawson practices, though he does not make calls outside of his office unless there is an emergency, but in doing his "emergency" work he has taken care of three maternity cases since he was ninety years old. In addition to his secretarial work for the Hendricks County Medical Society, he has been secretary of his Wabash College class of 1876 since his graduation. Hats off to Dr. Lawson! Look him up at the Indianapolis meeting. He will be there—he never misses.

EXAMINATIONS FOR APPOINTMENTS IN MEDICAL CORPS OF NAVY

The Surgeon General of the Navy, Rear Admiral Ross T. McIntire, has announced the following schedule for examinations for appointments in the Medical Corps of the United States Navy: *Acting Assistant Surgeon for intern training*—October 6 to 9, 1941, inclusive and January 5 to 9, 1942, inclusive. *Assistant Surgeon*—August 11 to 15, 1941, inclusive; October 6 to 9, 1941, inclusive; and January 5 to 9, 1942, inclusive. Examinations will be held at all of the larger Naval Hospitals and at the Naval Medical Center, Washington, D.C. Applications for authorization to take the examination must be in the Bureau of Medicine and Surgery three weeks prior to the date of the examination. Application forms for these examinations will be forwarded by the Bureau of Medicine and Surgery, Navy Department, Washington, D.C., upon request.

* * *

RETURN YOUR INFORMATION CARD FOR THE A.M.A. DIRECTORY PROMPTLY

About September 1, an information card will be sent from the headquarters office of the American Medical Association to every physician in the United States and Canada. The information secured is to be used in compiling the Seventeenth Edition of the American Medical Directory.

The directory is prepared at regular intervals in the Biographical Department of the American Medical Association. The last previous edition appeared in 1940. This volume is one of the most important contributions of the American Medical Association to the work of the medical profession in the United States; it has been especially valuable in the medical preparedness program. In it, as in no other published directory, are dependable data concerning physicians, hospitals, medical organizations and activities. The directory provides full information concerning medical colleges, specialization in the field of medical practice, memberships in special medical societies, tabulations of medical journals and medical libraries and, indeed, practically every important fact concerning the medical profession in which any one might possibly be interested.

Before filling out the information card, read the instructions carefully. Physicians are especially urged to state whether or not they are on extended active duty for the medical reserve corps of the United States Army and Navy. Fill out the card and return it promptly whether or not a change has occurred in any points on which information is requested. If a change of address occurs before March 1, 1942, report it at once. Should you fail to receive a card before the first of October, write at once to the headquarters office, stating that fact, and a duplicate card will be mailed.

EXAMINATIONS FOR MEDICAL POSITIONS ANNOUNCED BY CIVIL SERVICE COMMISSION

Examinations for three types of medical positions in the Government service have just been announced by the Civil Service Commission. This is another indication of the great demand for technically trained personnel of every kind in the defense program. Each of these positions has been open to competition within the past year, but the demand grows even faster than the supply.

Junior medical officer positions at $2,000 a year will be filled at St. Elizabeths Hospital in Washington, D.C. There are two types of interneship: Rotating and Psychiatric Resident. The rotating interneship consists of 4 months of surgery, acute medical service, and of chronic medical service; 2 months of obstetrics and of pediatrics, on affiliation; 3 months of general laboratory work; and 6 months of psychiatry. To qualify, applicants must be fourth-year students in a Class A medical school. Applicants must show completion of the course prior to June 30, 1942, before they may enter on duty. Graduates in medicine who have already served an accredited rotating interneship are offered a postgraduate interneship of one year of psychiatry (American Medical Association Classification 2, Type B). To qualify for this type of appointment, applicants must have completed their fourth year of study in a Class A medical school subsequent to December, 1935, and must have either a B.M. or M.D. degree. Applications will be accepted at the Commission's Washington office until *November 15, 1941,* and will be rated as soon as practicable after receipt.

Medical technical assistant positions at $2,000 a year and medical guard-attendant positions at $1,620 a year will be filled in the Mental Hygiene Division of the U. S. Public Health Service. Applicants must be registered graduate nurses, or have been honorably discharged (within the 10 years immediately preceding date of receipt of application) from active service in the Medical Corps of the Army or Navy, or have had three years' service as guard-attendant in a Federal penal or correctional institution. In addition, for the technical assistant, applicants must show that their experience has included one year of responsible training or experience in Clinical Laboratory Technique, Pharmacy, or X-ray Laboratory Technique. Applications will be accepted *until further notice.* Persons who were rated eligible for these two positions in the examination which closed in February of this year need not apply for this new examination as eligibles from both examinations will be combined on the new register.

Further information and application forms may be obtained at any first- or second-class post office or from the Civil Service Commission in Washington. Qualified persons are urged to file their applications at once.

The American Bureau for Medical Aid to China has undertaken to supply all personnel needs, to recruit Chinese doctors living abroad for service in the Chinese Medical Corps, to equip and support the special emergency training centers in China for medical aides and to aid the Chinese National Health Administration in its anti-epidemic control plan. The Medical Bureau has opened a special department at 1790 Broadway, where American doctors and nurses can apply for service in China. Surgeons, doctors, nurses, pharmacists, ambulance drivers and medical assistants are eligible for serving in the American Relief Corps to China, and one American-British Canadian ambulance corps of fifty members has already left for service in China, financed by the American Friends Service Committee, coordinating its China work with United China Relief.

* * *

APPOINTMENTS IN THE MEDICAL CORPS, UNITED STATES NAVAL RESERVE

The Surgeon General of the Navy invites the attention of civilian doctors to the opportunity of becoming commissioned officers of the Medical Corps in the U. S. Naval Reserve.

Male citizens of the United States, graduates of class "A" medical schools, who are under fifty years of age and who meet the physical and professional requirements, are eligible for appointment as commissioned officers in the Medical Corps of the Naval Reserve.

The Naval Reserve, created and established as a component part of the Navy by the Naval Reserve Act of 1938, is composed of citizens of the United States and of the insular possessions of the United States who, by appointment or enlistment therein or by transfer or assignment thereto, obligate themselves to serve in the Navy in time of war or during the existence of a national emergency declared by the President.

Appointments in the Medical Corps, U. S. Naval Reserve may be made either in the Volunteer Reserve, General Service Class or the Volunteer Reserve, Special Service Class.

The purpose of the "Volunteer Reserve" is to provide a force of qualified officers and men in numbers which, added to the officers and men in other branches of the Reserve, will be adequate to fulfill the purpose of the Naval Reserve. Members of this class are not required to attend drills or perform training duty but may request this duty with or without pay, depending upon the availability of funds for this specific purpose.

The "Volunteer Reserve, Special Service class" is composed of specialists, qualified by their professional experience and attainments for appointment in one of the various special service classifications. Appointments are made in the "Volunteer Reserve, Special Service class" upon the presentation of satisfactory credentials, which may be accepted as qualifying the candidate for appointment without the professional examination. The grade and rank for appointment in this class is determined by the candidate's age, professional standing, and academic seniority.

Applicants desiring appointments in the Medical Corps of the Naval Reserve should communicate with the Commandant, Ninth Naval District, Great Lakes, Illinois, requesting application forms and the "Circular for the information of Persons Desiring Appointments as Officers in the United States Naval Reserve," or they may request this circular from the Bureau of Medicine and Surgery, Navy Department, Washington, D.C. This circular contains full information regarding classification, promotion, pay and allowances, etc.

* * *

INTERNATIONAL ASSEMBLY IN OCTOBER

This year's International Assembly of the Inter-State Postgraduate Medical Association of North America will be held in the public auditorium, Minneapolis, Minnesota, October 13, 14, 15, 16 and 17.

The officers of the Inter-State Postgraduate Medical Association, those of the Hennepin County Medical Society and the Minnesota State Medical Association, extend a very cordial invitation to all members of the profession in good standing to attend the Asembly.

A full program of scientific and clinical sessions will take place each day and evening of the Assembly, starting at 8:00 o'clock in the morning.

In cooperation with the Hennepin County Medical Society, the Minnesota State Medical Association and the Minneapolis Civic and Commerce Association, an opportunity for an intensive week a postgraduate medical instruction is offered by approximately eighty-five teachers and clinicians from different parts of the United States and Canada.

Pre-Assembly and post-Assembly clinics will be conducted, free of charge, in the Minneapolis Hospitals on the Saturdays previous to and following the Assembly, for visiting members of the profession.

The registration fee for the scientific and clinical sessions will be $5.00.

A list of speakers and further information in regard to the meeting may be found on advertising page xxxiii.

* * *

POSTGRADUATE COURSES IN OBSTETRICS WILL BE CONTINUED AT INDIANA UNIVERSITY MEDICAL CENTER

Continuing the policy of the past three years, the Indiana State Medical Association, in cooperation with the Indiana University School of Medicine and the Indiana State Board of Health, will sponsor both intramural and extra-mural postgraduate courses in obstetrics during the coming year.

Four two-weeks sessions will be given at the Coleman Hospital. Each session is open to six physicians who will reside at the Coleman Hospital where they can be in close contact with the clinical work at both the University Hospitals and the City Hospital. The dates for these intramural courses will be:

1st Course—October 13 to 25, 1941
2nd Course—January 12 to 24, 1942
3rd Course—April 13 to 25, 1942
4th Course—July 13 to 25, 1942

There is no charge for room and board. A deposit of $10, which will be refunded on the satisfactory completion of the course, is required.

These courses in postgraduate education are made possible without cost to the postgraduate student through the cooperation of the Bureau of Maternal and Child-Health of the Indiana State Board of Health with Indiana University Hospitals, in extending its postgraduate program in obstetrics and pediatrics.

These intensive obstetric courses will include bedside clinics, antepartum and postpartum care, attendance at all deliveries, both normal and abnormal, during the two-weeks residency at Indiana Medical Center, manikin demonstration, care of the newborn and premature infant, didactic lectures, and special demonstrations and lectures in laboratory procedures. The work will be under the full-time direction of Carl P. Huber, M.D., Associate Professor of Obstetrics, Indiana University School of Medicine, and Consultant in Obstetrics of the Indiana State Board of Health.

Announcements of the intramural courses, together with an application form, have been mailed to all the physicians of the State, and it is hoped that those interested will make early application.

Extra-mural lecture courses with motion pictures and manikin demonstration are available by arrangements through Doctor Huber. These courses are offered to any area of the State, in cooperation with the activities of the county medical society. Any societies interested are requested to communicate with Doctor Huber through their local society secretaries.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION BUREAU OF PUBLICITY

Present: H. G. Hamer, M.D., chairman; F. M. Gastineau, M.D.; F. W. Taylor, M.D., and T. A. Hendricks, executive secretary.

The following releases received final approval for publication:

May 29—"Swimming with Safety."
June 7—Reprint of Journal editorial on Selective Service to be supplied to newspapers.
June 14—"Safety in Fishing."

Reports on medical meetings:

May 13—Fayette-Franklin County Medical Society, Connersville. "Physical Therapy, the Importance of and Use by the Physician." Also round table discussion. (20 present.)
May 13—Vigo County Medical Society, Terre Haute.
May 15—Hamilton County Medical Society, Noblesville. "Effects of the War Upon the Medical Profession." (20 present.)

The Executive Committee of the Indiana State Medical Association has taken the following action in regard to the League of Women Voters' study upon "Federal Responsibility for Public Health and Health Insurance":

"The Executive Committee reviewed the report made by the Bureau of Publicity of the state medical association in regard to the study program of the League of Women Voters on 'Federal Responsibility for Public Health and Health Insurance.' The Executive Committee agreed with the Bureau of Publicity that the kit contains an overbalance of material favoring socialized medicine and after discussing the matter with Dr. Sensenich, it was suggested that Dr. Homer Hamer, chairman of the Bureau of Publicity, and Dr. Mitchell, president, present this subject to the Board of Trustees of the American Medical Association at its meeting in Cleveland. At the suggestion of Dr. Sensenich a letter is to be written to Dr. Olin West, secretary of the American Medical Association, requesting that Dr. Mitchell and Dr. Hamer be heard by the Board of Trustees. The committee feels that this is a very important matter and one which should receive the particular and special attention of the proper groups of the American Medical Association."

Request to be received from the League that the state medical society supply material for the Indiana group in its study. Statement to be prepared in regard to this subject for presentation to the Board of Trustees of the American Medical Association.

The Bureau authorized the purchase of the pamphlet series on group health plans, published by Medical Administration Service, 1790 Broadway, New York City.

There being no further business the meeting was adjourned.

WOMAN'S AUXILIARY

Indianapolis invites you September 23-25!

Every doctor's wife is urged to make reservations for the annual Auxiliary breakfast to be held Wednesday, September 24, at 8:30 a. m., at Ayres' Tea Room. The business meeting which will follow in the Auditorium is planned to convene and adjourn

promptly. This meeting is an opportunity for each Auxiliary member to learn of the aims and activities of the state organization. Each county auxiliary is urged to send an exhibit to the state convention showing the work done by their group.

The *Hoosier News Letter*, which will be issued September 1, will contain a complete program of women's activities during the convention.

The Marion County Auxiliary is sponsoring a hobby show to be set up in the Claypool Hotel. Mrs. Koons, General Chairman of Women's Entertainment for the convention, urges each doctor or member of his family who is hobby-minded to participate in this exhibit.

Mrs. C. L. Bock, who has been vacationing in Wisconsin, has called a meeting of the executive board to complete plans for the convention.

The Howard County Auxiliary entertained the wives of doctors of their district at a bridge party and tea on May 21, 1941.

The Vigo County Auxiliary held a luncheon meeting in May, at which Mrs. C. L. Bock was the guest speaker. Plans were made to increase the number of meetings from four to seven and to stress the study of medical legislation. Many of the members are active in Red Cross work and plans are under way to collect old surgical instruments for Bundles for Britain.

INDIANA STATE MEDICAL ASSOCIATION

THE EXECUTIVE COMMITTEE

August 10, 1941

Roll call showed the following present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; A. M. Mitchell, M.D.; M. A. Austin, M.D.; F. T. Romberger M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: Virgil Sheppard and Mrs. Helene Smith, State Department of Public Welfare.

Minutes of the meeting of June 29 approved upon the motion of Dr. McCaskey, seconded by Dr. Romberger.

The statements of receipts and expenditures for June and July for the association committees and THE JOURNAL were approved upon the motion of Dr. Romberger, seconded by Dr. McCaskey.

Membership Report:

Number of members Aug. 9, 1941	3177	(106 hon. mems.) (143 in service)
Number of members Aug. 9, 1940	3109	
Gain over last year	68	
Number of members Dec. 31, 1940	3192	(90 hon. mems.)

Treasurer's Office

No report at this time.

1941 Annual Session at Indianapolis

Satisfactory progress being made on arrangements under the direction of Charles F. Thompson, M.D., general chairman.

September number will be the convention issue of THE JOURNAL.

Commercial exhibit. 45 spaces sold; 4 to be sold.

Banquet speakers.

a. Dr. Fred W. Rankin, Lexington, Kentucky, president-elect of the American Medical Association, has accepted invitation to be the banquet speaker and will talk upon "The Medical Profession and the Emergency."

Badges. Upon the motion of Dr. Mitchell, seconded by Dr. McCaskey, the committee selected the badge of the Benham-Pray Company.

Letter from Schering Corporation in regard to passes for exhibitors. The committee said that anyone introduced by the Schering Corporation would receive a guest badge at the registration desk during the time of the meeting. This privilege also will be given to the guests of any other exhibitor.

Speakers' table arrangement for banquet. The following are to sit at the speakers' table:

State Association Officers:

President, A. M. Mitchell, M.D.
President-elect, M. A. Austin, M.D.
Treasurer, A. F. Weyerbacher, M.D.
Chairman of Council, F. T. Romberger, M.D.
Editor of JOURNAL, E. M. Shanklin, M.D.
Chairman of Ex. Com., C. A. Nafe, M.D.
Member of Ex. Com., C. H. McCaskey, M.D.
Attorney, Albert Stump

Local Officers:

J. O. Ritchey, M.D., president
Wm. M. Dugan, M.D., secretary
Indianapolis Medical Society

Seventh District Medical Society Officers:

Russell Sage, M.D., president
E. W. Dyar, M.D., secretary
C. J. Clark, M.D., councilor
C. F. Thompson, M.D., chairman, Committee on Convention Arrangements

Outstate essayists and eminent guests:

Louis Hopewell Bauer, M.D., Hempstead, N. Y.
J. Peerman Nesselrod, M.D., Evanston, Ill.
Richard Bartley Cattell, M.D., Boston
James P. Leake, M.D., Bethesda, Maryland
Ralph Pemberton, M.D., Philadelphia
Paul M. Wood, M.D., New York
Russell L. Haden, M.D., Cleveland
W. Kenneth Jennings, M.D., Chicago
Sanford R. Gifford, M.D., Chicago
Fred W. Rankin, M.D., Lexington, Ky.
William Ditmars Province, M. D., New York
Charles Mazer, M.D., Philadelphia
C. D. Selby, M.D., Detroit
John J. Moorehead, M.D., New York
Fred M. Smith, M.D., Iowa City, Iowa
W. D. Gatch, M.D., dean, I. U. School of Medicine
J. W. Ferree, M.D., director, State Board of Health
C. B. Schreiber, Tell City, president, Indiana Pharmaceutical Association
Dr. Glen L. Jenkins, dean, School of Pharmacy, Purdue University
W. H. Crawford, D.D.S., dean, Indiana University School of Dentistry
Rex Douglas, D.D.S., Elkhart, president, Indiana State Dental Association
Henry F. Schricker, Governor
Charles M. Dawson, Lieutenant-Governor

Special tables are to be set aside for the ex-presidents and their wives and the wives of those

seated at the speakers' table. Dr. Charles N. Combs is to be in charge of arrangements for these tables.

Certificate for Dr. Karl Ruddell to be presented by Dr. A. M. Mitchell.

Request of National Physicians' Committee for place on program. As the program has already been completed the suggestion was made that the secretary write to John M. Pratt, executive administrator of the National Physicians' Committee, suggesting that perhaps Dr. Rankin would be the man to make any mention of the National Physicians' Committee that might be appropriate for the Indiana group.

Committee on Credentials. Letter received from Dr. W. F. Carver of Albion, chairman of the Committee on Credentials, that he will be unable to attend the annual meeting and suggesting that Dr. A. L. Fipp of Rome City, his alternate, be appointed to serve on this committee. The Executive Committee regrets that Dr. Carver will not be present at the meeting and suggested that a note expressing the regrets of the committee be sent to him and that Dr. Fipp be made a member of the Credentials Committee for the Indianapolis session. However, the committee felt that someone who had been a member of the House of Delegates for a period of years and thereby was familiar with the membership should act as chairman.

Meeting of Executive Committee set for 6:30 p. m., Monday, September 22, Claypool Hotel. The co-chairmen of the Legislative Committee, Dr. Beatty and Dr. Wright, Dr. Crockett, member of the Legislative Committee of the A. M. A., and Dr. Sensenich, member of the Board of Trustees of the A. M. A., to be invited to attend the meeting.

Legislative, Legal and Social Security Matters

National

H. R. 4965, with osteopathic amendment, becomes a law.

H. R. 4476 passes House and is in Senate Military Affairs Committee.

H. R. 1052, introduced by Representative Tolan of California, giving chiropractors right to treat injured federal employees, brought to the attention of the committee. This bill is now being considered by a subcommittee of the House Committee on the Judiciary of which Raymond S. Springer of Connersville, Indiana, is a member.

Federal legislative bulletin No. 7 from A. M. A. Each member of the committee has received a copy of this bulletin.

Letter from Dr. West in regard to A. M. A. appeal. Dr. West will send copies of appeal to the state association upon its completion, if such are available. Statement in regard to the A. M. A. trial distributed to the House of Delegates at Cleveland brought to the attention of the committee. This can be found on page 2791 of the June 14, 1941, issue of *The Journal of the A. M. A.*

Local

Letter from Indiana Hairdressers' and Cosmetologists' Association. Letter received from this organization complaining against Dr. Daniel L. Bower being reappointed as head of the Indiana Beauty Culture Board reviewed by the Executive Committee. The Executive Committee instructed the secretary to answer this communication saying that the Indiana State Medical Association did not sponsor the bill creating the Indiana Beauty Culture Board, that the committee is not at all interested in any personalities or personal conflicts that have arisen because of this bill, and that the state medical association at the present time as in the past feels that insofar as possible each patient should have the right to choose his own physician. The committee suggested that a copy of the letter from the Indiana Hairdressers' and Cosmetologists' Association be sent to Dr. Bower asking him to supply the committee with any answer he desires to make to the letter.

Suggested amendment to present hospital law. Mr. Stump, attorney for the association, reported that he had answered the letter received from the Clinton County Medical Society suggesting that the law governing the membership of county hospital boards be changed. After Mr. Stump's discussion it was the unanimous opinion of the committee that it might be disadvantageous and bring up more difficulties than it would correct if the present hospital law were changed as suggested by the Clinton County Medical Society. The Clinton County suggestion was that it should be obligatory to place a physician upon the governing board of a county hospital. The following statement in regard to this matter was made by Mr. Stump:

> "In regard to the question involved—that is, whether it would be advisable to have a law requiring that a physician be on the governing board of the county hospital, presented a situation which it seemed to me might be undesirable. If the board of county commissioners is friendly to the profession generally there would be no difficulty under the present law in getting adopted whatever rules and regulations the profession feels should prevail in the hospitals. If on the other hand they are unfriendly, then even if a physician were required to be on the board that physician might be a person who is antagonistic to the profession in general, or at least unacceptable to them. It could induce the county commissioners to take some physician who had an antagonistic spirit to his brothers in the profession and put him in a place where he might utilize his membership on the board to his own personal advantage and to the disadvantage of others in the profession. On account of these possibilities which were presented in the course of the discussion it would seem that this is a problem that should receive more consideration before it should be taken up as a part of the program of the State Association."

Organization Matters

Lashley-Perry County Case. The suggested amendment to the By-Laws prepared by Dr. Romberger is to be taken up at the first meeting of the Council during the annual session. Dr. Lashley and a representative of the Perry County Medical Society are to be asked to appear before the Council at this first meeting. In addition, copies of the material from both sides which has been sent to each councilor are to be available at that meeting.

The executive secretary is to make an informal, unofficial trip to Perry County and talk to the members of the society there individually, starting with the president and secretary and, if possible, meeting each of the individual members and discussing the entire situation with them.

Physician on Industrial Board. The following letter was received from Henry F. Schricker, governor, in regard to the suggestion made by the Council concerning the appointment of a physician on the Industrial Board:

"I have before me your letter of July 26th, recommending that a physician be placed on the State Industrial Board.

"Personally, I have grave doubt about the wisdom of such a move. I feel that it would prove embarrassing to any reputable physician named to such a post. For in a very large per cent of cases that are tried before this Board, we find physicians testifying on both sides of the case, and it seems to me that any action taken by the physician member could easily result in serious misunderstanding in the final determination of these claims.

"As you well know, I entertain a very high regard for the medical profession of our state, and, therefore, regret to take issue with your Executive Committee on this question."

This letter was referred to the Council of the state association from whence the original suggestion came.

Suggested appointment of a new historian. Letter received from Dr. Maple in which he suggests that a historian should be appointed who can give more time to this position than he is able to give at the present time. "The history work needs someone with lots of time and money," he states. According to the action taken by the House of Delegates in 1929, the work of the historian comes under the Bureau of Publicity and the position "is to be filled by nomination by the president of the Association and election by the House of Delegates."

State Board of Health

Letters received from Minor Miller, M.D., chairman of the Committee on Venereal Disease, and from B. W. Rhamy, M.D., head of the Fort Wayne Medical Laboratory, stating that the pathologists oppose a change in the venereal disease report cards which Dr. Ferree at the last Executive Committee meeting informed the committee had been authorized by the State Board of Health, were brought to the attention of the committee. The committee suggested that letters be written to Dr. Rhamy and to Dr. Miller making it clear that these changes in the venereal disease report cards were made by the State Board of Health and that the Executive Committee had nothing whatever to do with them, and that, after discussing the matter with Dr. Ferree, the entire subject was referred to the Venereal Disease Committee. The committee also suggested that copies of these letters should be sent to Dr. E. M. VanBuskirk of Fort Wayne, chairman of the State Board of Health.

Advisory Committee on Health Projects of Works Progress Administration. Suggestion made that a representative of the Indiana State Medical Association be placed upon this advisory committee. The Executive Committee suggested the name of Dr. A. M. Mitchell, president, to serve on this advisory committee.

Indiana Pharmaceutical Association recommends pharmacist on State Board of Health. Recommendation made by the Indiana Pharmaceutical Association at its annual convention in June, 1941, that a pharmacist be placed on the State Board of Health, brought to the attention of the committee.

Health Council in Monroe County. Dr. Nafe and Dr. Weyerbacher are to make further inquiries in regard to this council and its functions and report at the next meeting of the committee.

Group Hospitalization and Medical Service Plans

Visit from heads of Michigan Hospital Service. John R. Mannix, head of the Michigan Hospital Service, and Mr. Griffin, attorney for Michigan Hospital Service, paid a visit to Indiana and proposed that a hospital service plan be set up in this state immediately and without waiting for a legislative enabling act. The Executive Committee was of the opinion that the medical profession would not oppose such a plan if it were presented by the Hospital Association but that the state medical association would actively sponsor a plan only after the proper clauses, which, according to the attorney general's opinion are necessary to make such plans legal in this state, were written in the law.

Medical Economics

Letters received from the National Youth Administration presented to the committee.

Medical Relief

New legislation placing responsibility for medical care of all recipients of old age, blind, and dependent children assistance upon the Department of Public Welfare, brought to the attention of the committee. Virgil Sheppard, director of the Division of Public Assistance, and Mrs. Helene Smith appeared before the committee and discussed this matter. The committee referred this question to the Medical Relief Committee of the Indiana State Medical Association whose chairman is John S. Leffel, M.D., Connersville, Indiana. In general the committee feels that insofar as possible these are questions that should be settled by the local county welfare boards and the local medical societies, as pointed out by Dr. Leffel in his letter to the committee on this subject.

Mr. Sheppard said that an advisory committee was to be appointed and asked that a representative of the state medical association sit on that committee. The Executive Committee proposed the name of Dr. Leffel to represent the Indiana State Medical Association upon this advisory committee and suggested that the present Medical Relief Committee of the state association could act as a technical advisory committee to the main advisory committee referred to by Mr. Sheppard.

WPA reports. June and July WPA reports brought to the attention of the committee.

Socialized Medicine

Survey of League of Women Voters. Correspondence brought to the attention of the committee. The A. M. A. has sent fifty copies of the article entitled "The Case for Private Medicine" and has promised to send fifty copies of the revised booklet, "Organized Payments for Medical Service," for use of the various Auxiliary and League of Women Voters' groups in this study.

Speaker on State Social Workers' Conference program. A letter has been received from Wade T. Searles, executive secretary of the Indiana State Conference on Social Work, requesting the state association to name someone to discuss a talk which is to be given by Dr. Nathan Sinai of the University of Michigan at the conference. The committee suggested that Dr. R. L. Sensenich, a member of the Board of Trustees of the American Medical Association, be invited to represent the state medical association on this occasion.

Statement of Altmeyer in regard to extension of Social Security Act. Newspaper article from the *Washington Post* stating that Altmeyer is for the extension of the Social Security Act to cover the risk of ill health brought to the attention of the committee. The committee suggested that perhaps Dr. E. M. Shanklin, editor of THE JOURNAL, might desire to make some editorial comment in regard to this.

California governor advocates universal compulsory health insurance. See statement on page 234 of the January 18, 1941, issue of *The Journal of the American Medical Association.*

Military Preparedness

Correspondence in regard to the deferment of medical students, including letters from General Lewis B. Hershey, Dr. Olin West and Dr. W. D. Gatch, brought to the attention of the committee. The committee deeply appreciates and commends the selective service officials for their foresighted general policy of deferring medical students due to the fact that a shortage of physicians may develop as a result of the emergency unless medical students are allowed to finish their training courses at this time.

Farm Security Administration

Notice received that a general program with the Farm Security Administration (such as has been worked out in Indiana) whereby arrangements for

(Continued on page xxx)

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:
"This has been my first experience in ten years of licensed practice but it has been worth all the premiums I have paid to be able to go ahead with my work and let your Company do the worrying."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PHA OMAHA INSURANCE PCA OMAHA

For ethical practitioners exclusively
(56,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $32.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $64.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $96.00 per year

39 years under the same management

$2,000,000.00 INVESTED ASSETS
$10,000,000.00 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

EXECUTIVE COMMITTEE

(Continued from page xxix)

taking care of these clients are made through the component county medical societies was approved by the Legislative Committee of the A. M. A. at the recent Cleveland meeting.

National Nutrition Conference

Dr. Ferree said that there was nothing new to report at this time.

Invitation to American Public Health Association Meeting.

The executive secretary of the Indiana State Medical Association has received an invitation to speak at the American Public Health Association Institute which is to be held at Atlantic City October 11 to 14 upon "State Medical Association Press Relationships." Upon the motion of Dr. Mitchell, seconded by Dr. McCaskey, the executive secretary was authorized to attend this meeting.

Annual Report of Executive Committee

Report with corrections formally approved by the committee for publication in THE JOURNAL.

The Journal

Advertising of National Tuberculosis Association. The committee authorized THE JOURNAL to donate one full page in the December JOURNAL for an advertisement of the National Tuberculosis Association. This is in accordance with the procedure that has been followed for several years past.

The committee approved sending THE JOURNAL free of charge to the Indiana State Library.

INDIANA STATE BOARD OF HEALTH BUREAU OF COMMUNICABLE DISEASE

Monthly Report, June, 1941

Diseases	*June 1941*	*May 1941*	*April 1941*	*June 1940*	*June 1939*
Tuberculosis	138	218	70	172	157
Chicken Pox	89	247	487	208	133
Measles	1197	5116	4715	77	33
Scarlet Fever	131	435	570	198	232
Smallpox	1	8	2	16	49
Typhoid Fever	13	5	1	19	16
Whooping Cough	98	197	128	137	258
Diphtheria	25	38	48	13	19
Influenza	17	55	49	25	14
Pneumonia	37	90	78	55	26
Mumps	56	158	238	205	92
Undulant Fever	2	2	0	13	5
Meningitis	1	4	1	7	2
Septic Sore Throat	5	0	0	0	1
Rocky Mt. Spotted Fever	1	0	0	2	3
Rubella	73	330	313	0	0

COME TO INDIANAPOLIS
SEPTEMBER 23, 24, 25, 1941

BOOKS

BOOKS RECEIVED

BODY MECHANICS. Joel E. Goldthwait, M.D., F.A.C.S., organizer and first chief of orthopaedic service, Massachusetts General Hospital; Lloyd T. Brown, M.D., F.A.C.S., instructor in orthopaedics, Harvard Medical School; Loring T. Swaim, M.D., chief orthopaedic consultant, Robert B. Brigham Hospital; John G. Kuhns, M.D., F.A.C.S., assistant in orthopaedic surgery, Harvard Medical School, and William J. Kerr, M.D., F.A.C.P., professor of medicine, University of California Medical School. Third edition. 316 pages with 121 illustrations. Cloth. Price $5.00. J. B. Lippincott Company, Philadelphia, 1941.

ESSENTIALS OF PHARMACOLOGY AND MATERIA MEDICA FOR NURSES. Albert J. Gilbert, M.D., instructor of Pharmacology, Aultman School of Nursing; Selma Moody, R.N., instructor of Nursing Arts, The Presbyterian Hospital, Chicago. 231 pages with 15 illustrations, including 4 color plates. Cloth binding. Price $2.25. The C. V. Mosby Company, St. Louis, 1941.

NECROPSY. By Bela Halpert, M.D., assistant professor of pathology and bacteriology, Louisiana State University School of Medicine, and visiting pathologist, Charity Hospital of Louisiana at New Orleans. 75 pages. Cloth. Price $1.50. The C. V. Mosby Company, St. Louis, 1941.

PRINCIPLES OF MICROBIOLOGY. Francis E. Colien, B.S., M.S., Ph.D., F.A.P.H.A., associate professor of Bacteriology and Preventive Medicine in The Creighton University School of Medicine, and major, Sanitary Division United States Army Medical Reserve; and Ethel J. Odegard, R.N., A.B., M.A., instructor in sciences applied to nursing, College of Saint Teresa, education director Miami Valley Hospital School of Nursing, Dayton, Ohio. 444 pages. Cloth. Price $3.00. With 140 text illustrations and 18 color plates. The C. V. Mosby Company, St. Louis, 1941.

COMPLETE WEIGHT REDUCER. Edited by C. J. Gerling. 246 pages. Cloth binding. Price $3.00. Harvest House, 70 Fifth Avenue, New York, 1941.

BOOK REVIEWS

CARDIAC CLASSICS. A Collection of Classic Works on the Heart and Circulation with Comprehensive Biographic Accounts of the Authors. Fifty-two Contributions by Fifty-one Authors. By Fredrick A. Willius, M.D., M.S. in Med., chief, section on Cardiology, the Mayo Clinic; Professor of Medicine, the Mayo Foundation for Medical Education and Research, the Graduate School, the University of Minnesota; and Thomas E. Keys, A.B., M.A., Reference Librarian, The Mayo Clinic. 858 pages. Cloth. Price $10.00. St. Louis, The C. V. Mosby Company, 1941.

In 1929, Esmond R. Long published his "Selected Readings in Pathology." This was followed the next year by John F. Fulton's "Selected Readings from the History of Physiology," and in 1932 there appeared Ralph Major's "Classic Descriptions of Diseases." 1936 saw the first of the five volumes of "Medical Classics" published in journal form. All of these works, as the names imply, are reprints of great contributions to the literature of medicine, the originals of which are not readily available to the majority of physicians. Probably inspired by the widespread interest in these publications, Willius and Keys of the Mayo Clinic have just published a sumptuous volume entitled "Cardiac

(Continued on page xxxii)

For the local Treatment of Acute Anterior Urethritis
(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE*
Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae.[1] An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

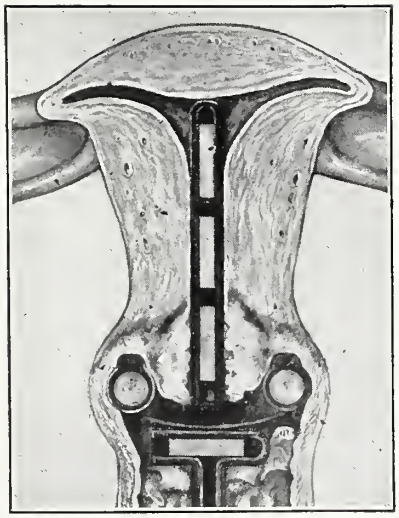
1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., 23, 201 (March), 1939.

A complete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

IMPROVE YOUR RESULTS IN CANCER OF THE CERVIX



CONSISTENTLY high percentages of 5-year cures in Carcinoma of the Cervix are reported by institutions employing the French technique illustrated here. Ametal rubber applicators encase the heavy primary screens and provide ideal secondary filtration to protect the vaginal mucosa. Radium or Radon applicators for the treatment of Carcinoma of the Cervix and provided with Ametal filtration are available exclusively through us. Inquire and order by mail, or preferably by telegraph or telephone reversing charges. Deliveries are made to your office or hospital for use at the hour you may specify.

THE RADIUM EMANATION CORPORATION
GRAYBAR BUILDING Tel. MOhawk 4-6455 NEW YORK, N. Y.

LABORATORY APPARATUS

Coors Porcelain Pyrex Glassware
R. & B. Calibrated Ware
Chemical Thermometers
Hydrometers Sphygmomanometers

J. T. Baker & Co.'s C.P. Chemicals
Stains and Reagents
Standard Solutions

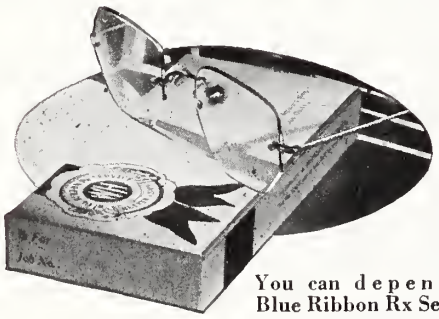
• BIOLOGICALS •

Serums Bacterins Media
Antitoxins Vaccines Pollens

We are completely equipped, and solicit your inquiry for these lines as well as for Pharmaceuticals, Chemicals and Supplies, Surgical Instruments and Dressings.

The RUPP & BOWMAN CO.
319 SUPERIOR ST., TOLEDO, OHIO

THERE IS A DIFFERENCE
IN Rx SERVICE



You can depend on
Blue Ribbon Rx Service

THE WHITE-HAINES OPTICAL CO.
INDIANAPOLIS and SOUTH BEND

BOOKS—Continued from page xxx

Classics." There is perhaps no English-speaking physician who is better fitted to select the "classic" contributions to the literature of cardiology than is the senior author.

The introductory chapter on "The Influence of Certain Cardiac Classics on the Development of Modern Cardiology" is a short, crisp epitome of the development of our knowledge of heart disease. Then follows the Robert Willis translation (1847) of Harvey's *de motu cordis.* The authors say, in their preface, "The first classic included in this volume is the epoch-making contribution of William Harvey published in 1628. We have deliberately avoided earlier medical writings, being convinced that Harvey's work is in reality a fundamental contribution on which the modern conception of the anatomy and physiology of the heart and circulation are based." (The reviewer, however, has the temerity to question the omission of the work of Servatus on the lesser circulation.) Following Harvey in chronological order are the contributions of some fifty-odd authors including Malpighi, Stephen Hales, De Senac, Morgagni, Auenbrugger, Heberden, Withering, Laennec, Corvisart, Sir Dominic Corrigan, Austin Flint, His, Einthoven, Mackenzie, and finally James Bryan Herrick who changed the diagnosis from acute indigestion to coronary thrombosis.

Every chapter is preceded by a short biography of the author and in most instances by a portrait. In content and format, the volume is a delightful one and is a real addition to any medical library.

E.F.K.

ORAL PATHOLOGY. A Histological, Roentgenological, and Clinical Study of the Teeth, Jaws, and Mouth. By Kurt H. Thoma, D.M.D., Professor of Oral Surgery, and Charles A. Brackett, Professor of Oral Pathology, Harvard University, Boston, Massachusetts. First edition. Cloth. 1306 pages with 1370 illustrations including 137 in color. Price $15.00. St. Louis: The C. V. Mosby Company.

This textbook represents one of the largest and most comprehensive treatises ever written on oral pathology. The material is presented in 12 parts or sections which are listed as follows: (1) Experimental pathology; (2) Developmental anomalies of the teeth; (3) Developmental anomalies of the head; (4) Functional changes of the teeth; (5) Injuries of the teeth; (6) Odontitis; (7) Periodontal diseases; (8) Extension of odontogenic infection; (9) Diseases of the jaws; (10) Tumors of the jaws and oral mucosa; (11) Diseases of the oral mucosa, lips and tongue; and, (12) Diseases of the salivary and mucous glands. There are 45 chapters in the book which cover these general topics.

The book is well written and the material interestingly presented. Proper emphasis is placed upon the value of visual education as is evidenced by the inclusion of 1370 illustrations. Many of the lesions are represented in color. Pathological processes are taken up in a systematic manner and in such a way that the beginner is not confused. Controversial points are discussed clearly and concisely; new developments in pathology are properly evaluated. One of the most important additions is the extensive bibliography presented at the end of each chapter. This offers the specialist a ready check on doubtful points and provides reference for more extensive reading.

The author constantly emphasizes the necessity of correlating the microscopic picture with the clinical expression of disease, thereby demonstrating the value of pathology as a vital part of clinical practice. Pathology of the teeth, the jaws, and oral mucosa is treated from the diagnostic standpoint and rounded out by a broad discussion of etiological factors. The roentgenologist will

(Continued on page xxxiv)

INTERNATIONAL MEDICAL ASSEMBLY

Inter-State Postgraduate Medical Association of North America

Public Auditorium, Minneapolis, Minnesota, October 13, 14, 15, 16, 17, 1941

Pre-Assembly Clinics, October 11, Post-Assembly Clinics, October 18, Minneapolis Hospitals

President, Dr. Roscoe R. Graham
President-Elect, Dr. George R. Minot
Managing-Director, Dr. William B. Peck
Secretary, Dr. Tom B. Throckmorton
Director of Exhibits, Dr. Arthur G. Sullivan
Treasurer and Director of Foundation Fund, Dr. Henry G. Langworthy
Chairman Program Committee, Dr. George W. Crile
General Chairman Minneapolis Committees, Dr. Charles E. Proshek

ALL MEDICAL MEN AND WOMEN IN GOOD STANDING CORDIALLY INVITED

Intensive Clinical and Didactic Program by World Authorities

The following is the list of members of the profession who will take part on the program:

Frank E. Adair, New York, N. Y.
Alfred W. Adson, Rochester, Minn.
John Alexander, Ann Arbor, Mich.
Walter C. Alvarez, Rochester, Minn.
W. Wayne Babcock, Philadelphia, Pa.
Lewellys F. Barker, Baltimore, Md.
Claude S. Beck, Cleveland, Ohio
E. T. Bell, Minneapolis, Minn.
Herrman L. Blumgart, Boston, Mass.
Peter T. Bohan, Kansas City, Mo.
William F. Braasch, Rochester, Minn.
Carl D. Camp, Ann Arbor, Mich.
James G. Carr, Chicago, Ill.
Richard B. Cattell, Boston, Mass.
Russell L. Cecil, New York, N. Y.
Frederick Christopher, Evanston, Ill.
Warren H. Cole, Chicago, Ill.
Frederick A. Coller, Ann Arbor, Mich.
C. Donald Creevy, Minneapolis, Minn.
William R. Cubbins, Chicago, Ill.
Elliott C. Cutler, Boston, Mass.
Walter E. Dandy, Baltimore, Md.
Robert S. Dinsmore, Cleveland, Ohio
Claude F. Dixon, Rochester, Minn.
Daniel C. Elkin, Atlanta, Ga.
John F. Erdmann, New York, N. Y.
A. Carlton Ernstene, Cleveland, Ohio
Ernest H. Falconer, San Francisco, Cal.
Warfield M. Firor, Baltimore, Md.
John R. Fraser, Montreal, Canada
Henry J. Gerstenberger, Cleveland, Ohio
Harry S. Gradle, Chicago, Ill.
Evarts A. Graham, St. Louis, Mo.
Roscoe R. Graham, Toronto, Canada
Howard K. Gray, Rochester, Minn.
Robert G. Green, Minneapolis, Minn.
Russell L. Haden, Cleveland, Ohio
Emile F. Holman, San Francisco, Cal.
Verne C. Hunt, Los Angeles, Cal.
Thomas E. Jones, Cleveland, Ohio
Elliott P. Joslin, Boston, Mass.
Thomas E. Jones, Cleveland, Ohio
Chester S. Keefer, Boston, Mass.
H. Dabney Kerr, Iowa City, Iowa
J. Murray Kinsman, Louisville, Ky.
Herman L. Kretschmer, Chicago, Ill.
Frank H. Lahey, Boston, Mass.
N. Logan Leven, St. Paul, Minn.
William E. Lower, Cleveland, Ohio
Charles W. Mayo, Rochester, Minn.
John L. McKelvey, Minneapolis, Minn.
John C. McKinley, Minneapolis, Minn.
Irvine McQuarrie, Minneapolis, Minn.
John J. Moorhead, New York, N. Y.
George P. Muller, Philadelphia, Pa.
Clay Ray Murray, New York, N. Y.
John H. Musser, New Orleans, La.
Horace Newhart, Minneapolis, Minn.
Emil Novak, Baltimore, Md.
Frank R. Ober, Boston, Mass.
Paul A. O'Leary, Rochester, Minn.
Eric Oldberg, Chicago, Ill.
Oliver S. Ormsby, Chicago, Ill.
Ralph Pemberton, Philadelphia, Pa.
Dallas B. Phemister, Chicago, Ill.
Isidor S. Ravdin, Philadelphia, Pa.
Hobart A. Reimann, Philadelphia, Pa.
Erwin R. Schmidt, Madison, Wis.
Elmer L. Sevringhaus, Madison, Wis.
George E. Shambaugh, Chicago, Ill.
Leroy H. Sloan, Chicago, Ill.
Thomas P. Sprunt, Baltimore, Md.
Virgil P. W. Sydenstricker, Augusta, Ga.
Willard O. Thompson, Chicago, Ill.
Maurice B. Visscher, Minneapolis, Minn.
Waltman Walters, Rochester, Minn.
Owen H. Wangensteen, Minneapolis, Minn.
Soma Weiss, Boston, Mass.
Henry M. Winans, Dallas, Texas
Wallace M. Yater, Washington, D. C.
Hugh H. Young, Baltimore, Md.

HOTEL HEADQUARTERS
Hotel Nicollet—Hotel Radisson

HOTEL RESERVATIONS

Hotel Committee: Dr. A. N. Bessesen, Jr., Chmn.
829 Medical Arts, Bldg., Minneapolis, Minnesota

A program will be mailed to every member of the medical profession in good standing in the United States and Canada on or about September first.

Any member of the profession in good standing who does not receive a program, please write the Managing-Director and one will be mailed.

Comprehensive Scientific and Technical Exhibit. Special Entertainment for the Ladies.

The Orthopedic Shoe Selected For Posture

to be an aid to limb and body ailments

Heid assures a most careful shoe fitting as to doctors' prescriptions for type of shoe, last and correction to be attached for ailments.

Stock and Made-to-Measure Shoes

Orthopedic and standard shoes built flexible, resilient or rigid (not the same type for everybody) are featured and fitted by Irvin Heidenreich. Also persons sent in for good, comfortable shoes in regular or odd sizes are fitted at reasonable prices (seldom exceeding ten dollars).

HEID'S HEALTH SHOE

1546 N. ILLINOIS ST. (Sq. East of Meth. Hosp.)

RADIUM

RENTED
for the individual case at lowest rates. Instruments loaned.

LEASED
in any quantity of 50 milligrams or more, on a yearly basis. Continuous possession. No investment.

SOLD
in any quantity in latest platinum containers.

RADON in all-gold Implants at $2.50 per millicurie.

For details, address

RADIUM AND RADON CORP.
Marshall Field Annex • Randolph 8855
CHICAGO

BOOKS—Continued from page xxxiv

find value in the x-ray reproductions and their interpretation. Accepted methods of treatment are given in connection with each disease entity.

The correct working relations between the medical and dental professions are made clear in the text. The welfare of the patient is kept constantly in mind. In reading the book one is impressed more than ever by the close relationship which exists between oral and systemic disease. General pathology is mentioned in the text only insofar as it contributes to a better understanding of oral symptoms. It is taken for granted that the student will be thoroughly grounded in this subject before undertaking the specialized study of oral disorders. This book will then assist him in correlating accepted doctrines with personal observations. General hormonal upsets, nutritional deficiencies or other pathological changes are considered in this manner. The complex malady of dental caries is adequately reviewed. Periodontal diseases are classified and discussed at great length. The classification used conforms to that adopted by the Academy of Periodontology at the American Dental Association Meeting in Cleveland (1940). The classification of oral tumors is adapted from that established by The Registry of Bone Sarcoma. In general, the book can be most heartily recommended to the dental practitioner and student for basic and collateral reading as well as the medical profession. Undoubtedly it will be accepted as filling a need among those who are specialists in all the various branches of the healing art.

GLENN J. PELL
VIRGIL D. CHEYNE.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1940. Cloth. Price $1.00. Pp. 181. Chicago: American Medical Association, 1941.

This volume contains not only all of the published reports of the Council for the preceding year but also reports on products which were not deemed important enough to be published in THE JOURNAL. Council reports may be classified in general as those of omission or rejection, preliminary reports and status reports on drugs or on various therapeutic and pharmacologic problems. Representatives of all classes appear in this volume.

There are a number of interesting reports in the "non-acceptable" category. The one on the widely exploited Neurosine of the Dios Company sounds a timely warning on the hazards of bromidism and uncontrolled hypnotic medication. The report rejecting a number of preparations of gonadotropic hormone from the serum of pregnant mares, together with the report rejecting certain ovarian and ovarian anterior pituitary preparations, attest the Council's continued critical interest in the field of endocrinology. This is also indicated in the report on Desoxycorticosterone, written by Doctor Edgar S. Gordon and adopted by the Council for publication with a statement of the Council's attitude on the present status of adrenal cortex. The Council finds adrenal cortex therapy now in an unsatisfactory and unsettled state.

Two reports relegate to the therapeutic scrap heap, the drugs Isacen and Melubrin: Isacen was accepted in 1926 as a non-toxic laxative or purgative; Melubrin is an antipyretic which seemed to have promise when it was accepted in 1913 but which the manufacturer has now ceased marketing. It is interesting to note that at the time these preparations were accepted the Council expressed some misgiving which later proved justified.

Noteworthy preliminary reports are on Guanidine Hydrochloride-Calco, which has been proposed for use in the treatment of myasthenia gravis, and Acetylglycarsenobenzene, a new antisyphilitic for intramuscular use, which the Council feels should be further perfected. In its report the Council comments with approval upon the manner in which the Winthrop Chemical Company has developed the latter and studied it before even considering its commercial production.

Among the nomenclature reports are those designating "Pyridoxine" and "Pyridoxine Hydrochoride" for Vitamin B_6 and Vitamin B_6 Hydrochloride; "Sulfathiazole" for 2-Sulfanilamidothiazole and "Sulfamethylthiazole" for 2-Sulfanilamido-4-Methylthiazole. Preliminary reports on these drugs as well as on Phenothiazine and Histaminase are included.

It is difficult to choose any among the so-called status reports for special mention—all are noteworthy for one reason or another. The report on the present status of the injection treatment of hernia is a continuation of the Council's consideration of this question. The Council has reached the decision that it is necessary to condemn the exploitation of the injection treatment of hernia by manufacturers of solutions.

Another status report that must be mentioned is that on Lipocaic, a new pancreatic hormone concerned in some way with the normal transport and utilization of fat. The Council awaits development of further clinical evidence for Lipocaic and expressed the opinion that the method should not be recognized for routine practice.

Mention must be made of the excellent report on organic mercurial compounds as bactericidal agents, which states the Council's conclusion that no organic mercurial compound has yet been offered that will guarantee the destruction of spores under all conditions.

Another valuable report is that on the promiscuous use of the barbiturates. This is a continuation of a previous study of the use of barbituarates in suicide. The present study is an analysis of hospital data.

One cannot even glance through a volume such as this without reflection on the great value of the Council on Pharmacy and Chemistry's work, which so richly deserves the support of all who are interested either directly or indirectly in the progress of medicine.

NEW AND NONOFFICIAL REMEDIES, 1941, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1941. Cloth. Price, postpaid, $1.50. Pp. 691—LXX. Chicago: American Medical Association, 1941.

New and Nonofficial Remedies is the book in which are described the medicinal preparations found by the Council on Pharmacy and Chemistry to be acceptable for the use of physicians. The book is cumulative; each year there are added the descriptions of products accepted during the foregoing year. Those taken off the market or found no longer worthy of continued ac-

(Continued on page xxxvi)

ZEMMER
PRESCRIBE OR DISPENSE ZEMMER
Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc.
Guaranteed reliable potency. Our products are laboratory controlled.
Write for general price list.
THE ZEMMER COMPANY IN-9-41
Chemists to the Medical Profession *Oakland Station, Pittsburgh, Pa.*

CHECKERBOARD TACTICS

Like men on a checkerboard, many people jump back and forth between the squares of optimum and minimum nutrition. Both the game of nutrition and the game of checkers are a matter of some luck . . . but more skill. To maintain desired health states it is well to depend upon the skill of application of modern nutritional knowledge. Maintenance of high standard dietaries can be accomplished with surprising ease if the simple rules of nutrition are observed.

COCOMALT finds its place in this dietetic scheme of things for both normal and therapeutic diets. Its rich flavor urges young and old to drink milk. COCOMALT contains calcium, phosphorus, iron . . . Vitamins A, B_1, D and G . . . quick energizing elements . . . body building nutrients. Recent studies and references* confirm these facts.

Cocomalt is used more and more by physicians in diets for growing children and adults; for pregnancy and lactation; malnutrition, anorexia, pre- and post-operative patients, convalescence, febrile diseases and gastro-intestinal conditions.

COCOMALT

The Enriched Food Drink for All Ages

R. B. DAVIS COMPANY • Hoboken, N. J.

*Arch. of Ped.—56: Nov. 1939; Med. Record—Aug. 21, 1940; Med. Record—150:1:1939; Arch. of Ped. 57:448 (July) 1940; Med. Record—149: Jan. 1939; Surgery—6:1:1939.

BOOKS—Continued from page xxxiv

ceptance are deleted. The book is at that time also revised to bring it up to date with the most recent medical thought. Until recent years the additions and deletions have about balanced. Recently, however, the bulk of the book has been increasing and this year's volume represents the largest book of the more than thirty volumes that have been issued.

This year's new additions include the new sulfanilamide derivative, sulfathiazole, as well as sulfapyridine sodium; antipneumococcic rabbit serum of types I, II, III, V, VII and VIII; human convalescent measles serum and human convalescent scarlet fever serum; and staphylococcus antitoxin. The field of endocrinology is represented by the addition of chorionic gonadotropin (follutein). The addition of shark liver oil reflects the search for new sources of vitamins A and D caused by the cutting off of foreign cod liver oil. Other newly accepted preparations are ampules of camphor, digilanid and magnesium trisilicate.

The most extensive revision is represented by the rearrangement and amplification of the chapter, Serums and Vaccines. This chapter is now prefaced by a helpful index, an innovation in N.N.R. The chapter, Vitamins and Vitamin Preparations for Therapeutic and Prophylactic Use has been revised to keep it abreast of the newer developments in this field. Here, too, we find something of an innovation in the systematic use of graphic chemical formulas. It is understood that this practice will be extended to other parts of the book in future editions. Careful perusal will reveal minor revisions in many parts of the book made in the interest of greater clarity and in the effort to keep the book thoroughly up to date.

Complete Program for Annual Session—Page 467.

NOTES ON TUBERCULOSIS

Thousands of young men are being examined daily for military service and these physical examinations offer the best opportunity this country has ever had to discover a large part of that vast reservoir of unknown, untreated cases of tuberculosis which keeps the White Plague on the march. Routine x-rays for tuberculosis should be given every man called up for Selective Service. Thomas Parran, M.D., Surg. Gen., U.S. Pub. Health Serv.

Tuberculosis in the United States Army will be reported in accordance with the standards compiled by a group of specialists under the auspices of the National Tuberculosis Association and published by them under the title, "Diagnostic Standards and Classification of Tuberculosis." A copy of the booklet has been furnished each officer in the Army Medical School.

Tuberculosis, like all plagues, spreads most dangerously in the close contacts of the family. Resistance breaks down before a mass attack, and the steady bombardment of each other by husbands and wives, parents and children, brothers and sisters is the best of all mechanisms for perpetuating the disease. People exposed to tuberculosis in their own homes are, roughly, ten times as likely to fall sick of it as are people in the population at large. "Plague On Us" by Geddes Smith, Commonwealth Fund, 1941.

Three million dollars a month is being spent on tuberculous soldiers today. Flatly, it costs around $10,000 to induct a man suffering from tuberculosis and $50.00 a month for the rest of his life, plus compensation benefits for his dependents after his death. D. B. Craigin, M.D., Med. Dir., Aetna Life Ins. Co.

It makes their regular check-ups "fun" by giving youngsters some wholesome CHEWING GUM

It's such an easy, thoughtful gesture to always offer your little patients some delicious Chewing Gum while they're waiting or when they leave the office. They just love it — and it makes a big hit with adults, too. And for such a small cost this one, friendly, little act goes a long way in winning extra good will and affection. Besides, as you know, the chewing is an aid to mouth cleanliness as well as helping to lessen tension. Enjoy chewing Gum, yourself. Get a good month's worth for your office today.

There's a reason, a time and place for Chewing Gum

NATIONAL ASSOCIATION OF CHEWING GUM MANUFACTURERS, STATEN ISLAND, NEW YORK

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 | OCTOBER, 1941 | NUMBER 10

THE MEDICAL FRONT—A DIGEST OF THE DOCTORS' SITUATION*

ALBERT M. MITCHELL, M.D.
TERRE HAUTE

It is proper and fitting at this meeting today, when all the world is in a dither as a result of war and destruction, to discuss and present to you some of the many social and economic problems that pertain to your daily life as a doctor. The foremost thought in the minds of everybody (including you) is national defense and security, both social and economic. You have to a great extent lost sight of the many inroads that national defense and social security are making into your daily lives as doctors. Social workers, government agencies, various groups and organizations are doing all they can to undermine you under this or that guise.

National Defense has created many new health problems, both preventive and curative, which will have to be met by all members of the profession. It has placed a big order upon you; I know you will meet it willingly and honorably. The Selective Service Act was the first of these problems. You met it willingly, successfully and without pay. You have given many hours of your time in seeing that only the physically fit should be inducted into the armed forces; you have been criticized, and most of these criticisms have been unjust; you have done a good job, and I am proud of you.

Many new and varied health problems have also been created, all of which will have to be met and solved by the members of the medical profession. They are the only persons who are equipped and specially trained to take care of the health of the people, both from a preventive and a curative standpoint. The Public Health Service seems to have forgotten that the doctors are the logical administrators of these health problems. The heads of this service appealed to the mayors of all communities to see that the sewage disposal and the water supply is good and is adequate to meet the needs in their locality and in all places where men are being trained or where war industry is being carried on. They are also to see that the food supply is of good quality; that venereal disease be controlled by the elimination of prostitution; that undernourishment be eradicated; that proper recreation for children be established; and last, but not least, that each mayor shall see that all industries in his community have proper medical supervision.

Another problem that has resulted from National Defense is that of rehabilitation for all those rejected from the armed forces. If these rejected selectees are not willing to have their defects corrected, what can anybody do except talk about it? Many of them are glad that they have defects, and the worst part of this is that the doctors are blamed because the health of the youth is not better. What can the doctor do if the people will not go to him for advice? I believe this is an unjust criticism.

There are some government agencies who say that faulty nutrition is the cause of many people's health being under par. This is probably true, but, when people want to keep their girlish figure, what are you going to do about it? There is one thing that all of you can do in regard to the question of faulty nutrition and that is to inquire into the eating habits of your patients. If their habits are not sound, try to put them on the right track.

National Defense is taking practically all of the young doctors and medical students into the armed forces. A large number of doctors die each year, resulting in a shortage of doctors for the civilian population and industry. This shortage has caused a problem for the Medical Preparedness Committee, with the result that it has proposed a procurement and assignment program for the profession. Before this program

* President's Address presented before the first General Meeting of the 92nd annual session of the Indiana State Medical Association at Indianapolis, September 24, 1941.

can be of any import, Congress must pass a law establishing this agency and, at the same time, give it some authority.

The League of Women Voters, a national organization, has been instilled with the idea that it should study socialized medicine. Who put this idea across to its members is not known, but I'll bet it was done by some political group. The League is making this study, which is to be completed in two years, through its county organizations. When these local groups have completed their study and have taken a vote as to whether they are for or against socialized medicine and have forwarded the results to headquarters, the national group will then either sponsor a legislative program to socialize medicine or reject it. Such a study has been made by various groups at different times in the past fourteen years, with no definite result. This study is a duplication of effort. Up to this time there has been no individual or group of individuals wise enough to solve judiciously the problem for all the people. Many of you have wives who belong to this organization; and to those of you whose wife does not belong, I ask that you see that she becomes a member.

The American Medical Association has, as an organization, been tried and convicted as a monopoly in Federal Court. Why the government has been so hard on us and not on other organizations is difficult to understand. These other organizations have been carrying out similar practices. Votes probably are the answer.

One of the most interesting outgrowths of this trial has been the formation of the "Medical Service Organization, Inc." This organization is composed of the doctors who testified against the American Medical Association in this trial. It is the group sponsoring cooperative group medicine. Do the leaders of this group feel that if the United States Supreme Court upholds the decision against the American Medical Association they have an organization that can take its place?

At the present time more people live beyond the age of sixty-five years than ever before. A great many of these are here because the medical profession through research has produced many things that will prolong life, and as a result the Social Security Act had to be broadened.

Beginning next January, the Department of Public Welfare in this state will give all-out medical care to all the people that come under this Act. This all-out medical care is humanitarian and is probably a broadening of the vote-getting principle, the same as was used by Bismarck and Lloyd George in the past. Although it is increasing your tax burden, it is not giving *you* any social security.

I have one word of warning. If the doctors of this state in any way abuse this all-out medical plan, I believe the Department of Public Welfare will try to employ doctors to carry out the provisions of this Act, and then we will have another step toward political medicine.

The National Physicians Committee has done a good job. There are many doctors who do not approve of this organization, saying that all this type of work should be done by the American Medical Association. I feel that a definite medical viewpoint is missing; if it were there, I am sure it would be a greater success.

Many things are happening to the doctors by legislative routes. The cults are working with the politicians to gain their ends. Congress has passed a law allowing osteopaths to be internes in military hospitals. The social workers also are taking a most active part in the field of health legislation; hence, it is up to the doctor to become active in politics for his own protection. The medical profession needs doctors in all state and national law-making bodies. If the doctors stay out of political offices, they had better see that someone will get into office who will do the job for them. You won't hurt your practice by being active in politics.

Regarding the insurance question, both hospital and medical, I have only this to say. It should give the policyholder free choice of hospital and physician. Hospital insurance should not include any medical services, nor should medical insurance include any hospital services. Both kinds of insurance should be under the supervision of the State Insurance Department for the protection of the policyholder.

This has been a pleasant year for me. Everybody in the state has done whatever has been asked of him. All of the committees have done excellent work. Tom Hendricks and his staff in the headquarters office have been most helpful. At this time I want to thank all for their kind and generous help.

Many problems are ahead of you: a congressional election, national defense, social security, and many others. To meet these problems you will have to be diplomatic and militant. I know that you will do your best and that you will do it willingly and successfully.

721 Wabash Avenue.

ABSTRACT: DIAGNOSIS OF CONGENITAL SYPHILIS

X-ray films of the unerupted permanent teeth as well as of the long bones should be used as aid in the early diagnosis of congenital syphilis, Bernard G. Sarnat, M.D.; Isaac Schour, D.D.S., and Robert Heupel, D.D.S., Chicago, state in *The Journal of the American Medical Association* for June 21.

They report the case of a Negro girl aged 4 years in whom a diagnosis of congenital syphilis was made by x-ray films of her unerupted permanent teeth and confirmed clinically two years later when the teeth had appeared in the mouth. X-ray films taken of the girl's long bones when she was 2 years old were of no diagnostic value, but had x-ray films of the mouth been taken at the same time the diagnosis of congenital syphilis could have been confirmed by the dental abnormalities.

SULFANILAMIDE IN APPENDICITIS WITH ABSCESS

MURRAY N. HADLEY, M.D.
INDIANAPOLIS

There are two objects in submitting the following brief report of a case recently treated. The first object is to remind us again of the tremendous educational value of our annual meeting of the American Medical Association. We occasionally hear the remark that the papers may be read at home, and that nothing of value is missed by non-attendance. It is true that the papers are published in *The Journal of the American Medical Association*, but a little skepticism as to whether they are widely read by non-attendants of the annual meeting is justifiable.

Be that as it may, it was hearing the papers on the successful use of the sulfonamides in certain surgical infections, especially peritoneal infections, which led me to try this treatment in a young woman, mother of two children, as outlined in the following case report. Evidence of the true value of these drugs in the chemotherapy of surgical infection is rapidly accumulating. If on further study and clinical use the high potency of these drugs, properly checked for adequate information as to safe dosage, is found to be true, failure intelligently to use them will soon become little short of criminal negligence.

The pertinent facts connected with the following case report constitutes the second reason for this paper. A parturient woman, six months pregnant, began having generalized abdominal pain. Shortly thereafter she was delivered of a dead baby. Following this, pain became less severe and what appeared to be a fairly normal puerperium occurred. However, a certain amount of residual abdominal tenderness persisted, especially in the right half of the abdomen, with moderate elevation of temperature.

Eleven days following this episode the patient was sent to the hospital. She was a short, obese individual, thirty years of age, and weighed more than two hundred pounds. Examination revealed a soft, flaccid abdomen without distention. There was a palpable, tender, mobile mass, as large as a grapefruit, above and to the right of the umbilicus. The fundus of the uterus appeared to be in normal involution. She had a temperature of 100, and a leukocyte count of 12,000.

A preoperative diagnosis of ovarian cyst with twisted pedicle and gangrene of the cyst wall was made. Such a diagnosis seemed all the more likely when it was observed, after the patient was anesthetized, that this mass could be moved to any desired position in the abdomen. A low mid-line incision was made and the mass was quickly found. It was entirely mobile and could easily be moved high in the abdomen or to the right or the left. At this stage of the operation the origin of the mass could not be determined, and in bringing the mass through the incision into the field for inspection, the author was horrified to witness the rupture of a large abscess which flooded the exposed loops of bowel with its foul contents. This was the first indication that there was a localized appendiceal abscess, and the rupture occurred before any attempt was made to exclude the loops of bowel by packs. The pools of pus in the coils of bowel were removed by means of sponges and suction. Further examination revealed that the cecum and terminal ileum were tightly embraced by the omentum which held in its grasp a detached phlegmonous appendix with a large fecolith. The part of the abscess wall formed by the omentum was gangrenous; it was, therefore, ligated and removed.

At this point the treatment proposed by a speaker at the American Medical Association meeting a week previous was recalled. Four grams of sulfanilamide in powdered form was sprinkled into the area of the abscess cavity. Four more grams were sprinkled over the contaminated loops of bowel, and the wound was closed around a small Penrose drain which was placed in the bed of the abscess cavity. It seemed futile to attempt drainage in a case with such a widely contaminated area. Chemotherapeutic action was, therefore, depended upon entirely. Beyond all expectation, based on previous experiences, the outcome justified the wisdom of this decision. The day following the operation four grams of sulfapyridine were given intravenously. The second day the blood concentration was 11 mgs. per 100 c. c., and two grams of sulfapyridine were given intravenously. The third day the blood concentration had fallen to 6.2 mgs. per 100 c. c. and four grams were given. Gastric decompression and water balance were maintained as is demanded in routine treatment in such cases. Very little distention developed, and peristalsis was active throughout convalescence.

An active wound infection developed with free discharge of pus which appeared to come from the thick, fat, infiltrated abdominal wall. This delayed convalescence, but there were no other complications. The fact that the wound became infected was strong corroborative evidence of the presence of viable bacteria in the abscess cavity. If the wound had been freely sprinkled with sulfanilamide powder, the wound infection might have been avoided. In a similar situation, this type of treatment certainly should be given.

What is the explanation of this unexpected course of the case? There can be but two possible explanations, namely, either the abscess was sterile, or the sulfonamides prevented the development of peritonitis. No culture of the pus was taken;

grossly it was thin, dark in color, and had the usual colon bacillus odor. As previously noted, the abscess contained a detached phlegmonous appendix and a fecolith. The evidence indicates strongly that the abscess was not sterile, and we are compelled to assume that the bacteriastatic action of the drugs was responsible for the outcome.

Whether these drugs have any virtue in the treatment of surgical infections of the abdomen remains to be seen after trial in thousands of cases. Nothing is more unscientific than to draw conclusions from observations which may be simply the result of the law of chance. However, the outcome of this case was so gratifying that it is hoped other surgeons will try this type of treatment.

809 Hume Mansur Bldg.

This is the tenth of a series of articles on Indiana's "Twelve Great Killers."

INFLUENZA

RUSSELL A. FLACK, M.D.
LAFAYETTE

Influenza has occupied a very important place in medicine for some hundreds of years. The disease, occurring periodically in major epidemic form with an alarmingly high death rate because of complicating pneumonia, must be considered each winter as a great potential danger to humanity. At the present time, when a large number of men are concentrated in military training centers, any disease with the epidemic reputation of influenza must receive greatest attention from all members of the medical profession.

During the years 1920 to 1940 inclusive, 67,884 cases of influenza were reported to the Indiana State Board of Health.[1] Because of laxity of the medical practitioners in reporting cases it must be admitted that this figure fails to represent the true incidence of the disease in Indiana during this period. Nevertheless, it is significant that during the same period of years 22,321 deaths were reported as being due to influenza. The disease was most prevalent during the years 1940, 1928, and 1932, whereas the greatest number of deaths were recorded in the years 1929, 1928, and 1923. Most of the cases were reported and most of the deaths occurred during the months of December, January, February, and March. In the different age groups the death rate varied directly with the age of the individual in persons over fifty-five years of age. The death rate for cases under one year of age exceeded all other age groups under fifty-five years.

ETIOLOGY. The causative agent of influenza has been definitely proved to be a filtrable virus, the virus of epidemic influenza.[2] The virus was first isolated in 1933 by Smith, Andrewes, and Laidlaw in England, and it was isolated in this country shortly afterward by Francis. It has been shown that the virus gains entrance to the body by way of the upper respiratory tract. During the early stages of the disease it is frequently possible to isolate the virus from throat-washings. Complement fixation tests have been devised [3, 4] which have served to differentiate influenza from other virus diseases, and these tests have also shown that there are different strains of the influenza virus.

PATHOLOGY. The pathological changes in influenza are limited mainly to the respiratory system. There is an acute inflammation of the mucosa of the nose, pharynx, trachea, and bronchi. Pneumonia is found in the majority of fatal cases, but it is thought that this rarely, if ever, is due to the primary virus infection alone. MacCallum classified the pneumonias complicating influenza as follows: (1) typical lobar pneumonia of pneumococcic origin; (2) interstitial broncho-pneumonia, or lobular pneumonia, due to streptococcic infection; (3) bronchopneumonia, with clusters of small abscesses in different portions of the lungs, due to staphylococcic infection; (4) purulent bronchitis and bronchiolitis due to Haemophilus influenzae (Pfeiffer's bacillus) infection; and (5) the acute fulminating bronchopneumonia, termed by many writers as a typical influenzal pneumonia which cannot be attributed to any one of the types of bacterial infections but which may be due to the action of the virus plus a mixed infection caused by bacterial invasion.

CLINICAL DESCRIPTION. The incubation period of epidemic influenza is approximately twenty-four to forty-eight hours. The onset of the disease is in a large majority of the cases sudden, with chilliness, headache, fever, generalized aching and a feeling of prostration. The fever rises rapidly to 102 or 104 degrees, usually reaching the maximum within twenty-four hours. The coryza which is so characteristic of the common cold is not found frequently in influenza. However, the patient often complains of a feeling of rawness in the nasopharynx and there may be some huskiness of the voice. Cough is moderately severe and at first is

---

[1] Jackson, J. W., Indiana State Board of Health: Personal Communication.

[2] Francis, T., Jr.: Epidemiological Studies in Influenza, *Am. J. Pub. Health* **27**:211, 1937.

[3] Eaton, M. D., and Rickard, E. R.: Application of the Complement Fixation Test to the Study of Epidemic Influenza, *Am. J. Hyg.*, Sect. B. **33**:23 (Jan.) 1941.

[4] Francis, T., Jr.: Epidemic Influenza: Studies in Clinical Epidemiology, *Ann. Int. Med.* **13**:915, 1939.

unproductive. Physical examination in uncomplicated cases shows some flushing of the face, redness of the eyes caused by conjunctival infection, redness of the nasal mucosa, coating of the tongue, and redness and dryness of the posterior pharynx. Enlargement of the regional lymph nodes is not observed except in the presence of complications. Examination of the lungs may show no abnormal findings, but usually a few sibilant rales are heard over the larger bronchial trunks. Later, with the advent of pulmonary complications, different types of abnormal lung findings may be observed. The picture will vary, depending on the type of bacterial infection which is developing, but the presence of moderately coarse, moist rales in the lung bases, characteristic of acute bronchiolitis, is the most common finding. The heart rate shows moderate acceleration during the febrile stage of the disease and there may be some fall in the blood-pressure in cases showing marked prostration, but there are no abnormal heart findings which are characteristic. Examination of the abdomen shows no abnormal findings. Signs of involvement of the nervous system are rarely observed.

Laboratory examinations show the leukocyte counts to be in the lowest normal range, or slightly lower. Leukocytosis develops only as complications arise. Urine examinations show no abnormal findings other than those which might be observed in any febrile state. Examination of the spinal fluid reveals only normal findings.

The febrile period in uncomplicated cases has a duration of from three to five days. In cases showing persistence of fever beyond the fifth day, lung complications are to be suspected. Frequently there is a secondary rise in temperature, with evidence of pneumonia developing, in cases which failed to remain in bed for several days after the temperature first returned to normal. Convalescence is gradual and the time required varies considerably, depending upon the severity of the attack. In severe cases general weakness may persist for several weeks after all other evidences of the disease have disappeared.

COMPLICATIONS. While pneumonia is by far the most frequent serious complication, a number of others may develop to prolong the duration and add to the gravity of the illness. Sinusitis, laryngitis, otitis media, and pleurisy are frequently encountered. In the 1918 epidemic many cases were complicated with pleurisy, with very rapidly developing massive pleural effusions. Influenzal meningitis is rare and usually occurs in children.

ACTIVE TREATMENT. The most important factor in treating a case of influenza is the maintenance of complete bed rest throughout the febrile period and for a period of three to five days after the temperature has returned to normal. Complications are infrequent in cases which have received proper bed rest. The room should be well ventilated, and the temperature of the room should be approximately 65 to 68 degrees. Exposure to cold air increases the irritation of the upper respiratory tract and often produces an excessive cough. Visitors should be excluded from the sick-room, and only one or two attendants should serve in the nursing care of the patient. During the febrile period the patient should have a fluid intake of 3,000 to 4,000 cc. daily, and his diet should consist mainly of carbohydrate beverages. When nausea and vomiting prevent an adequate fluid and food intake by mouth, the parenteral administration of five per cent glucose in physiological salt solution is advisable so as to insure an optimum fluid intake. After the first few days, as the appetite improves, the diet should include soft, bland foods as well as liquid foods. A high-caloric diet is essential during the period of convalescence in order to overcome the general weakness.

Mouth washes and throat gargles should be used regularly, three to four times daily until the throat irritation has subsided. Warm solutions of physiological salt solution, compound solution of sodium borate, or Dobell's solution are effective. When nasal blocking is present one per cent aqueous solution of ephedrine is indicated. Paper handkerchiefs should be used for all discharges from the nose and throat. These handkerchiefs should be collected in a paper bag at the bedside and later disposed of by burning.

In uncomplicated cases of influenza the drug therapy is largely symptomatic. For headache and generalized aching the use of acetylsalicylic acid, 10 grains, or phenacetin, 5 grains, every four hours is usually effective.[5] If these drugs are not well tolerated, or stronger sedative action is indicated, codeine in ¼ to ½ grain doses may be given every three to four hours. The codeine is especially beneficial in the control of severe cough, but such medication should not be used to the point where the cough reflex is seriously depressed. Expectorant cough mixtures usually are not indicated in the absence of complications and are to be avoided if symptoms of gastric irritation are present. Steam inhalations are often most effective when the cough is unproductive or very distressing. All symptoms should be interpreted in terms of their disturbing effect on the patient. As it is of utmost importance that the patient obtain sufficient rest, it is frequently advisable to give moderate doses of one of the barbiturates for rest at night, or smaller doses every six hours to allay restlessness. The bowels should move daily. Mild laxatives or saline enemas may be used. Strong laxatives are to be avoided.

Drugs of the sulfonamide group have not proved to be of value in the treatment of influenza; however, they are of tremendous value in the treatment of many of its complications. When complications are suspected, laboratory examinations should be made immediately in order that the type of the

[5] Scupham, G. W.: Therapy of the Cook County Hospital: The Therapy of Influenza, *J.A.M.A.* **116**:2264 (May 17) 1941.

invading bacterial infection may be identified and the proper type of chemotherapy instituted. The treatment in all types of lung complications is exactly the same as if these conditions had developed without any preceding influenza.

PROPHYLACTIC TREATMENT. During epidemics the presence of a large number of very mild cases makes it almost impossible to avoid contact with the infection. The wearing of cellophane or gauze masks over the nose and mouth; the prevention of large gatherings in schools, churches, or theaters; and the isolation of all cases suspected of even the mildest type of upper respiratory infection, may be of value in reducing the spread of the disease.

Vaccination with different virus preparations has received a great deal of study since the influenza virus was first isolated. However, conclusive evidence that active immunity to the disease can be produced by the use of vaccines has not yet been provided. Horsfall, Lennette and other investigators [6, 7] have conducted experiments with vaccines, and their results have been very encouraging. It seems highly probable that in the near future the medical profession will be provided with vaccines which will effectively prevent this dread disease.

[6] Horsfall, F. L., Jr., and Lennette, E. H.: A Complex Vaccine Effective Against Different Strains of Influenza Virus, *Science* **91**:492 (May 24) 1940.

[7] Dalldorf, G., Whitney, E., and Ruskin, A.: A Controlled Clinical Test of Influenza A Vaccine, *J.A.M.A.* **116**:2574 (June 7) 1941.

This is the tenth of a series of articles on Indiana's "Twelve Great Killers."

SUICIDE

J. J. WESTRA, M.D.
MUNCIE

This subject occupies a unique place in this series of papers. Unlike the other "killers" which have been discussed, it requires no diagnosis, and its victims require no treatment because it is a finality which at one step places them beyond our care.

The available statistical data on the incidence of suicide are incomplete and will probably never be any more than rough approximations, since the actual circumstances attending suicidal deaths are often unknown and they are recorded as being accidental. The social stigma that is brought on a family by the suicide of one of its members is often such that every attempt is made to have the death attributed to other causes. However, the annual number of suicides in this country is about 20,000 as a minimum, which is a considerable wastage of life when one considers that a large number of these are in reasonably young persons, in good physical health, who might otherwise have lived to be useful and productive citizens.

In addition to these successful suicidal attempts, there are many persons who make unsuccessful attempts to kill themselves. Just how numerous these are it is impossible to determine, but the most reliable estimates place the number at about 100,000, or five unsuccessful suicidal attempts for each actual suicide; this is a little under one suicidal attempt for each 1,000 of our total population. It is obvious why the number of unsuccessful suicides can be only vaguely approximated. Unless they fall into the hands of police departments, or come under the care of physicians or hospitals and a record is made of the act, the attempt is never known. In most nervous and mental institutions many inmates make one or more suicidal attempts which are not made known. Furthermore, an individual who survives a suicidal attempt with a desire to live is not anxious to have the facts known regarding his action. The contemplation of suicide, carried to the extent of a consideration of the means and making definite plans but stopping short of the act itself, is still more frequent, as is realized by every physician who has had occasion to make a psychiatric study of patients.

A recent survey[1] indicates that a larger number of women than men attempt suicide, but that men outnumber women by more than three to one in successful efforts. Of the women who attempt self-destruction, more than one-half are under thirty years of age, whereas among men the proportion at this age is only about one quarter. The difference in the success of suicidal attempts in men and women is somewhat explained by the fact that in each sex the chances of attempted suicide ending fatally increase with advancing age; for example, at ages under 25, one out of every six men who attempt self-destruction is successful, whereas at 50 and over the ratio is two out of three. Among women the chances of success are only one out of eighteen at ages under 25, but one out of two at the age of 50 and over. This general trend probably is due to the fact that in younger persons suicide is more likely to be a spur of the moment, uncontemplated affair with little consideration of the effectiveness of the means; whereas in older persons it is much more likely to be the end result of a long period of mental conflict, with more attention to the successfulness of the means employed.

There is also a definite difference in the methods

[1] *Statistical Bulletin*, Metropolitan Life Insurance Company, Vol. **22**:No. 5, page 9, (May) 1941.

used by the two sexes. The four most effective methods, drowning, shooting, hanging and jumping from high places are used by about one-third of the men and about one-tenth of the women; whereas poisoning, the least efficient method in unskilled hands, is used by about three-fourths of the women but only by about one-third of the men. This difference in the choice of means cannot be explained by their availability and is of itself of considerable psychiatric interest.

In the State of Indiana, the recorded deaths by suicide in the years 1932 to 1939 are as follows:[2]

Diseases	*1939*	*1938*	*1937*	*1936*	*1935*	*1934*	*1933*	*1932*
Suicides	575	583	590	480	524	605	689	646
Rate per 100,000 Population	16.5	16.7	17.0	13.8	15.9	18.3	21.0	19.9

This is an average rate for the eight-year period of 17.4 suicidal deaths per 100,000 population, which is more than three times the rate per 100,000 population of homicides. Analysis of the means employed reveals the following figures:[3]

Diseases	*1939*	*1938*	*1937*	*1936*	*1935*
Suicide by poison	107	112	130	119	126
Suicide by asphyxia	58	56	52	43	50
Suicide by hanging	92	122	129	89	95
Suicide by drowning	42	27	39	22	23
Suicide by firearms	241	233	200	172	193
Suicide by cutting	16	15	22	19	19
Suicide by jumping	7	10	5	5	6
Suicide by crushing	2	3	6	3	7
Suicide by other means	10	5	5	8	5

It is apparent that the four methods, firearms, poison, hanging and asphyxia, in that order, are responsible for most of the suicidal deaths. No data are available as to the relative percentage of males and females in these figures nor as to the age at the time of death.

The apparent motives precipitating suicide are various. In a few cases it is rather obvious, as in that of criminals who take their own lives to prevent the normal course of justice. Serious financial upheavals seem to bring in their train an epidemic of suicides among financiers; and profound social and political upheavals, such as have occurred in the countries which have recently come under Nazi domination, also take their toll in self-destruction. In younger persons, particularly young women, thwarted love affairs are a potent factor, and because these suicidal attempts are often impetuous gestures with little premeditation they frequently fail. Although a perusal of the suicides recorded in the daily papers would lead one to believe that many suicides are caused by despondency over poor health, it must be surprising to a physician who stops to think about it, how few patients with very painful and disabling diseases with a hopeless outlook seek an escape from their troubles by suicide.

The fundamental personality defect which can, when upset by some precipitating factor, lead to suicide is deserving of much more psychiatric study than it has so far received. One such recent study by Palmer[4] stresses the fact that suicide is a very complex phenomenon and that the motivations for the act are to be found in the personality structure of the individual to a far greater extent than in the immediate present environment to which the suicidal person appears to be maladjusted. An interesting finding of this study of twenty-five consecutive acute suicidal attempts is that in addition to a specific attempt at self-destruction there were other manifestations of a general self-destructive trend. More studies of the type reported by Palmer are urgently needed.

A consideration of the means by which physicians can be of aid in lowering this number of suicidal deaths is not encouraging. We can do almost nothing in the way of controlling the immediate precipitating factors. The fluctuations of the stock market and the periodic upheavals in the social and political order cannot be controlled as in the spread of the typhoid bacillus. Furthermore, the means used for the suicidal attempts can be controlled in only a minor degree. Better legislation should be enacted to control the sale and distribution of the barbiturates and other drugs which are frequently used in suicidal attempts, but high buildings, lakes and rivers, fire arms, illuminating gas, the tried and true rope and rafter, and poisons are available to anyone. This limits the physician's role almost entirely to the care of that small number of patients in which a suicidal tendency is either admitted by the patient or is recognized by his family, his associates, or the physician. Suicide may occur in the course of many psychoses, but it is to be feared most in patients with depression states. It should be remembered that every patient in a depressive state is a suicidal risk, and the family should be frankly informed of this. It is usually difficult to convince a family of this, so that whenever possible, institutional care should be insisted upon. The practical factor of expense will often make this impossible for the costs of care in private institutions are beyond the means of most of the patients and the state institutions are already so overcrowded that it is difficult to get the milder psychoses, with the best prognosis, admitted. Even under the precautions made possible by institutional care it is uncanny how some of these patients will succeed in their suicidal efforts in a moment when vigilance is relaxed.

The question is often raised whether it is possible to prevent eventual suicide in a person who is determined to destroy himself. This pessimism is probably based on the observation that patients have been repeatedly thwarted in suicidal attempts, only to succeed at a time when suicide was not

[2] Annual Report of the State Board of Health of the State of Indiana, for the Fiscal Year ended June 30, 1940, p. 49.

[3] Ibid, p. 50.

[4] Palmer, Dwight M.: Factors in Suicidal Attempts, a Review of Twenty-five Consecutive Cases, *J. Nerv. and Ment. Dis.* **93**:421, 1941.

feared and vigilance was relaxed. There are, to offset this attitude of defeatism, many individuals alive and well only because adequate precautions were taken during the period of the acute depression with its suicidal trend.

It is a melancholy thought that 100,000 persons in this country each year find life so unbearable that they attempt escape by suicide. Although psychiatry as a science has made notable advances in the past two decades and the number of physicians devoting their entire attention to mental disturbances has increased greatly, these figures indicate how many gaps there are in our knowledge and how inadequate has been our response to the challenge of personality disorders.

ANORECTAL DISEASES*

HOMER H. WHEELER, M.D.

INDIANAPOLIS

During the past two decades, the specialty of proctology has advanced probably more than any other specialty. It has progressed from the realm of quackery to a position of respect, and now it is given its due consideration among the specialties. The most important progress has been that concerned with the accurate diagnosis of rectal troubles which could not be established in any way other than by intelligent, direct inspection of the parts involved.

Buie[1] has said, in regard to the value of specialization in medicine, that "knowledge is not an inert or passive principle. It must be sought before it can be won. It is the product of great labor . . . and men who are content with their intellectual allotment will not incur this labor." Certainly this is true of the specialty of proctology. Proctologic diagnosis has advanced from the near-quack's pure guesswork to almost a fine art.

Let us consider a few of the rather common anorectal diseases that confront the general practitioner: constipation, hemorrhoids, fissure, fistula, pruritus, cryptitis and papillitis.

There is no class of symptoms that produces more profound effects upon the nervous and mental condition of an individual than do those produced by proctological diseases. We may realize how serious a lesion of the anorectal region may be when we know that the somatic nervous system is traumatized by pain, and the sympathetic is irritated as well. An anorectal lesion may deplete the nervous system, upset the normal mechanics of the intestinal tract, and ultimately undermine the individual's well-being. It is well known that toxic absorption and nervous reflex from the anorectal region are responsible for many cases of headache, migraine, biliousness, indigestion, backache, low resistance, neurasthenia, and even pulmonary disorders and skin lesions.

Dr. James B. Herrick once said that history-taking is an art which some physicians never acquire. It is an important essential in the proper diagnosis of anorectal diseases. A thorough examination, making use of the proctoscope and the sigmoidoscope, in addition to the digital examination, is the next essential.

The two most important symptoms in rectal diseases are pain and bleeding.

CONSTIPATION

Constipation is a symptom. Its cause must be ascertained. The anal canal with fissures, hemorrhoids, prolapse, pain and spasm, etc., is the cause of much constipation. They obstruct and cause nervous reflex through the parasympathetic nervous system that prevents or retards evacuation of the bowel unless the patient is given a cathartic or enema.

I am rather of the opinion that mucous colitis and an irritable colon are very seldom cured or relieved very materially in cases where there is a painful anus. Until the pathology in the anal canal is taken care of one cannot cure an irritable colon. The rectosigmoid is spastic in these cases of irritable colon, and a solution of magnesium sulphate applied directly to this area acts as a specific in overcoming the hypertonicity of the circular muscle fibers of the rectosigmoid apparatus. The cotton applicator is moistened with a saturated solution of magnesium sulphate and application is made directly to the spastic area. Treatment is repeated every second or third day until the spasm finally releases and function is restored.

Alvarez[2] says, "It is possible that a contracted anal ring might produce constipation by holding the feces back above the point where they can start the chain of reflexes that bring about defecation. The normal anal ring is perhaps two centimeters wide whereas these diseased and spasmodically contracted ones appear sometimes to be all of three centimeters wide. When a bolus of food reaches a certain point on the back of the tongue, swallowing becomes inevitable; and sim-

---

* Presented before the Ninth District Medical Society, Frankfort, Indiana, May 22, 1941.

[1] Buie, Louis A.: Value of Specialization in Medicine, *J.A.M.A.* **109**: 12 (Sept. 18) 1937.

[2] Alvarez, Walter C.: Introduction to Gastroenterology. Page 554.

ilarly, when fecal matter reaches a certain point in the anal canal, defecation should become easy."

Any medication that will cause an irritating liquid stool should not be prescribed when an acute anorectal disease exists. Complete rest of the diseased area, as nearly as possible, is demanded, with a much more rapid subsidence of pain and discomfort. Medicated enemas that cause irritation to the mucous membrane are contraindicated. Soap, glycerine, turpentine, and other irritants should not be used in enemas. Cool tap water or the normal salt enemas are recommended for the simple evacuation of the rectum.

Mineral oil makes complete evacuation impossible, has a deleterious effect upon the economy of fat soluble vitamins, prevents complete digestion, may interfere with absorption throughout the bowel, interferes with healing of postoperative wounds, often causes pruritus ani, and may produce pathologic changes in the liver and other viscera.

HEMORRHOIDS

Hemorrhoids (or piles) are varicose tumors lying at either end of the anal canal, with a tendency to prolapse from the anal orifice and to bleed. The cause may be constipation, sedentary habits, liver stasis or cirrhosis, poor local hygiene, infection, the erect posture of man, etc. There are two kinds —external and internal.

External hemorrhoids are in the distal portion of the anal canal. When hemorrhage occurs, it is subcutaneous, resulting in thrombus. In the first stage, the treatment indicated is a small injection of a local anesthetic, then excise the top of the hemorrhoidal tumor, and press out the clot; the edges are trimmed so that no new clot will form. Bleeding vessels should be ligated.

In some instances, the injection of the oil anesthetic beneath the pile tumor will suffice; the temporary relief thus obtained may extend into a period of days, until acute symptoms have subsided. The anesthetic found most effective in my practice is:

Procaine base	2%
Butysin	6%
Benzyl alcohol	5%
Oil of sweet almonds	

Internal hemorrhoids occur above the pectinate line of the anal canal and are covered by a thin columnar epithelium. Internal hemorrhoids are covered with mucous membrane, external hemorrhoids are covered with skin. The injection treatment may be used successfully in internal, uncomplicated hemorrhoids when they are not too large.

The injection treatment as a therapeutic measure for the relief of internal hemorrhoids is now generally recognized as an established and accepted method. The disappointment in its successful use is in the proper selection of cases. Failure to recognize the cases which should be excluded from the injection method is responsible for the majority of failures. The injection method is only applicable to hemorrhoids which have their origin above the pectinate line, those hemorrhoids covered with soft, velvety mucous membrane and which bleed easily when pricked with a needle. The anal papillae and crypts of Morgagni form a fringed base at the point of origin of the internal hemorrhoids with change in the appearance of the cutaneous lining of the anal canal. The location of a hemorrhoid does not determine the type. An internal hemorrhoid may be located above the sphincters or prolapsed and fixed outside of the anus. An internal hemorrhoid always is covered with endothelium, and an external hemorrhoid is covered with epithelium.

Having determined that we are dealing with an internal hemorrhoid that is suitable for injection treatment, we must select one of a number of solutions that possess the property of causing sclerosing of the tissues. It should be nontoxic but irritating enough to produce induration without producing sloughing. Five and ten per cent solution of quinine urea hydrochloride, usually five per cent, or five per cent phenol in olive oil are the two solutions most often used.

Injection should be made while the hemorrhoid is inside the rectum and not permitted to prolapse following the injection. Should the pile prolapse immediately following treatment, the mass should be replaced while the patient is in the recumbent position. If this position is maintained for a short while to permit sufficient induration to take place, the pile will remain above the sphincters.

Anesthesia is not necessary and a cleansing enema is not required. The largest pile is selected, or if a bleeding one is present that takes precedence over the others. Some mild antiseptic, as mercurochrome two per cent, may be used to paint the area to be injected. The needle is plunged into the hemorrhoidal mass with the point resting near the upper pole of the hemorrhoid. The depth of the needle will depend upon the size of the hemorrhoid. Before starting the injection, the piston of the syringe should be partially withdrawn to make certain that a blood vessel has not been punctured. From one-half to three cc. may be used to inject each hemorrhoid. The size will regulate the amount injected. Not more than five cc. should be employed at any single treatment. The induration from the preceding injection should disappear before another treatment is given. An interval of six to eight days is permitted to elapse before re-injecting the hemorrhoidal mass. From four to eight treatments may be necessary to shrink and sclerose the vessels to cause the disappearance of the hemorrhoid. The injection method is curative in about fifty per cent of properly selected cases.

FISSURE

Anal fissure is an ulcerous lesion situated usually in the posterior commissure. It is one of the most painful conditions about the anus.

Trauma of some sort produces the original abrasion, but ulceration does not occur in a healthy anus. Definite pre-existing anal or rectal disease must be admitted as an underlying factor. External trauma caused by the careless introduction of rectal suppositories or enema syringe tips may develop anal fissures. Internal trauma may result from sudden over-distention of the anus, unskillful instrumentation, or tearing of anal mucosa during prostatic massage.

Fissure and allied rectal conditions are now considered frequent causes of sciatica. The claim is made that a great number of such cases are relieved with the elimination of rectal distress, particularly fissure.

Multiple fissures may be found about the anus, and they may be syphilitic or gonorrheal in nature. They are often associated with condylomas about the anus and perineum.

Anal fissures are no different than ulcers in any other part of the body. The veins are diseased, and the term "irritable ulcer of the anus" is correctly descriptive.

Treatment with an oil anesthetic along with surgical treatment is indicated. Excision of the fissure and severance of the outer half of the corresponding portion of the external sphincter is most satisfactory.

FISTULA

Fistula in ano usually is preceded by an abscess which has ruptured spontaneously or, through improper care, has been allowed to contract without being made to heal from the bottom. The majority of fistulae are preventable providing the preceding abscess receives the correct treatment.

The cure of anal fistula is a surgical procedure, and fistulae which are not too extensive should be cleared up with one operation in ninety-five per cent of cases. Failure to heal a fistula is due to lack of proper surgical technic, injudicious packing, inadequate drainage, or improper postoperative care. Many surgeons prefer the cauterization method for operating tubercular fistulae, and others adhere to the usual surgical technic and use the scalpel. I prefer the cautery method in the belief that it retards the absorption of infection and prevents the possiblity of activating an old tubercular process.

Treatment of fistula is purely a surgical procedure and the injection of different medicaments or preparations such as bismuth, strong solutions of silver nitrate or sclerosing solutions seldom are curative.

PRURITUS

Pruritus ani is an intractable disease of the anus characterized by intense itching, perianal thickening of the cutaneous tissues, and profound nervous manifestations. Some refer to pruritus as a symptom, others refer to it as a definite pathological entity. There is great dissension in regard to its cause. The demoralizing effects are only known by one who has experienced this disease. In the early stages, the patient may be able to control or ameliorate the symptoms by the use of lotions, ointments, and careful cleanliness.

In spite of emphatic statements by various authors in regard to their pet theories, there still is great discussion as to the etiology of anal pruritus, and the variety of methods of cure and remedies offered are proof that there are several causative factors.

Pruritus may be caused by constipation, diarrhea, food allergy, exposure to parasites, personal habits, foci of infection, cryptitis, papillitis, hemorrhoids, mucous colitis, fistula, fissure, and even athlete's foot.

Hill[3] tells of investigative work based upon the concept of relationship between pruritus ani and dermatophytosis, a theory which gradually is being accepted. Hill quotes Dr. E. H. Terrell as saying that such allied skin diseases as seborrheic eczema of the scalp, external auditory canals, and epidermophytosis of the feet must be eradicated before there can be successful treatment of pruritus ani. Hill cites a series of cases with the conclusion that "In the great majority of cases, pruritus ani is the result of a primary invasion by dermatophyton of the perianal tissue; it is a toxic or dermatophytid reaction to a distant focus of this disease, or it may be an allergic manifestation of this or some similar condition." In a series of 201 cases of obvious pruritus ani, 65% of the cases showed primary or distant skin lesions, and 60% of that number showed a coexisting dermatophytosis of the feet.

The patience of both physician and patient often is exhausted before a definite cause for the pruritus can be found, but a definite cause *is* discoverable in almost every case if sufficient time and effort are devoted to the investigation. Foci of infection should be given attention first, then local symptoms should be cared for. Usually the patient requires immediate relief of his pruritic discomfort—and this may be obtained by the use of the oil anesthetic mentioned previously or by the subcutaneous injection of alcohol. While the patient recovers from his acute discomfort, other factors may be investigated.

The most effective treatment at the present time is the subcutaneous injection of 20 cc. of 45% to 50% solution of absolute alcohol. During the subsequent interval of relief, exhaustive investigations are made to determine possible causative factors, then, when indicated, operative procedures are performed to clear up any focus of infection about the anal canal, such as fissure, hemorrhoids, cryptitis, papillitis, etc. It is my opinion that allied anal infections should be taken care of at the same time that other treatment is given.

The injection of alcohol is not curative; it is only palliative unless the actual cause of the irritation is sought, discovered, and corrected.

[3] Hill, Malcolm R.: Etiologic Relationship Between Dermatophytosis and Pruritus Ani. Transactions, American Proctologic Society, 1940, page 210.

The possibility and probability of considerable necrosis following the injection of alcohol is mentioned by many authors, and they seem to expect to find abscess formation following the injection treatment. In only two cases have I observed this process, and in both instances the treatment followed closely the use of palliative x-rays. This is simply an observation; whether or not the x-rays were even remotely responsible is questionable, but in the light of that experience I prefer to delay the injection treatment for three or four months following the use of x-rays.

In seventeen recent cases of pruritus ani, I have used the tattooing method, using mercury sulphide as the medicinal agent. In this small series, thirteen had satisfactory results and four had a return of the itching, though in a lesser degree than before treatment.

A favorite prescription for local application in pruritus ani is:

Hydrargyrum chloride corrosivum.....grs. 3
Oil Ricini .....one dram
Alcohol (70%).....oz. 3

CRYPTITIS AND PAPILLITIS

The semilunar folds formed between the lower end of the columns of Morgagni are called the crypts of Morgagni, and inflammation of these crypts frequently causes pruritus ani and allied anal irritation. Cryptitis may be responsible for fistula, fissure, hemorrhoids. As a result of chemical irritation from repeated laxatives or enemas, the crypts are prepared to accept infection, and infection from a crypt may extend beneath the anal skin and weaken it so that over-stretching will cause a tear and resulting fissure. Healing will not be permanent until the infected crypt is removed. Papillae are so closely associated with the crypts that their involvement is to be expected. Cryptitis is a cause of a majority of the lesions of the anus, and may be said to be the cause of approximately ninety-five per cent of fistulae.

Treatment may be the application of a weak solution of silver nitrate, or clearing out the crypts and then painting with silver nitrate or gentian violet (2%). If the condition persists, the only treatment is surgical excision of the crypts and papillae. In this procedure, the incision should be carried out under the skin surface so as to promote drainage; otherwise, you will find that there is cupping, and very painful convalescence, through lack of drainage.

OIL ANESTHETIC

A brief mention of the anesthetic, mentioned several times throughout this paper, is apropos. In your own practice, the use of an oil anesthetic injected into the affected tissues will give the patient almost immediate and sometimes startling relief. There may be gratifying results with this treatment alone in many anorectal conditions. It may be used in cases of fissure, pruritus ani, external hemorrhoids, coccygodynia, sphincter spasms, and other conditions. When using oil anesthesia, one must take the precaution to avoid "puddling" or pools around the anus through the injection of too much solution in one area.

The use of an oil anesthetic in this way will provide relief for the patient who refuses operation or for the patient who requires relief during an interim of investigation, as mentioned previously in this paper.

There are a number of oil anesthetics on the market but the one found satisfactory in my practice is the Morgan formula, mentioned previously. From three to ten cubic centimeters may be used, depending upon the condition for which the injection is being made.

311 Hume Mansur Building

ABSTRACT: PHYSICIANS REPORT EFFECTS OF DRINKING DENATURED ALCOHOL

Six drinkers of "smoke" went into spontaneous coma due to depletion of blood sugar, Thomas McP. Brown, M.D., and A. M. Harvey, M.D., Baltimore, report in *The Journal of the American Medical Association* for July 5.

"This so-called smoke," the authors say, "has been prepared by the addition of a variety of denatured alcohols (varnish and paint removers, antifreeze, 'canned heat') to water; the milky or 'smoky' appearance of the resultant mixture has been the basis for its name. . . .

"All these patients undoubtedly had been drinking some form of denatured alcohol. The odor of the breath in each instance was of the same highly offensive, sickening alcoholic character and unlike the odor of the breath when ordinary alcoholic liquors have been consumed. Three of the 6 patients finally admitted that they had been drinking 'smoke' prior to the onset of the acute symptoms. Drinkers of 'smoke' usually deny this practice to avoid complications with the police."

The symptoms presented by the patients simulate those of a brain injury, such as a hemorrhage. They are rigidity of the extremities, deviation of the eyes, unequal reflexes, lockjaw, rigidity and then complete relaxation of a part of the body, twitching of the extremities and temperatures below normal.

"All of the patients," the authors continue, "came from a low economic level and had undoubtedly been on very poor diets for a considerable period of time. In addition, most of them had eaten almost nothing for the period immediately preceding their attack of hypoglycemia. We have not found evidence of hypoglycemia in the average case of alcoholic intoxication seen in the accident room. . . .

"It is clear that the denatured alcohol has been responsible for the development of hypoglycemia in the patients. The knowledge of the manner in which the poison has acted to produce the change . . . has remained obscure. . . . In only 1 of the 6 cases was there any demonstrable evidence of damage to the liver. The attempt to produce hypoglycemia in dogs by feeding this alcoholic mixture has failed. Treatment with hypertonic dextrose solution intravenously has resulted in dramatic and rapid recovery. . . .

"Although we have gathered little information concerning the exact nature and cause of this hypoglycemic reaction, we are reporting our clinical observations on 6 patients in the hope that other cases may be recognized elsewhere and further studies made on the nature of this disturbance in carbohydrate metabolism."

BRACHIAL BIRTH PARALYSIS*

K. ARMAND FISCHER, M.D.
LOUISVILLE, KENTUCKY

It has been known in medical literature for many years that paralysis sometimes occurs in an upper extremity following a difficult birth, and this condition has come to be known as brachial birth paralysis, Erb's palsy, or obstetrical paralysis. Brachial birth paralysis occurs especially where force is exerted on the upper extremity during the manipulations accompanying the birth of the child. An Englishman by the name of Erb[1] in 1874 demonstrated how the different types of traction used on the after-coming head in breech deliveries was sufficient to cause injury to the brachial plexus nerve roots with resulting paralysis. Other writers have stated that a manipulation that predisposes greatly to brachial plexus injuries is in a head presentation when one applies traction to the head and neck to hasten delivery of the shoulders and trunk.

In the past a number of writers contended that birth paralysis is secondary to a shoulder dislocation or other shoulder joint trauma rather than the condition being one of a direct injury primarily in the brachial plexus. Sever[2] of Boston experimented with infant cadavers and found that traction on the arm in abduction will bring about injury to the upper cords of the brachial plexus arising from the fifth and sixth cervical roots. These nerves are highest up in the brachial plexus and farthest from the rotation center so that they are pulled through a longer arc than the rest of the nerves and, therefore, are injured more easily. Sever[2] found that if the clavicle was broken the injury could be produced more easily and that it was hard to injure the eighth cervical and first dorsal roots under any conditions. He was unable to rupture the joint capsule, to separate the humeral epiphysis, or to dislocate the head of the humerus in any of his experiments. In face of the opposing views as to the causation of brachial birth paralysis, one must accept both theories as highly probable in this condition in view of the proof submitted by the various authors.

The essential pathology in brachial birth paralysis is the varying degree of injury to the brachial plexus, usually on one side; however, bilateral involvement has occasionally been seen. In some cases there are hemorrhages around the nerves and in other cases there is bleeding inside the nerve roots. The fate of the nerves depends on whether the blood is absorbed or whether it produces scarring. Other cases have a varying degree of tearing of the nerve cords, some have complete avulsion of the roots from their spinal attachments.

Following the nerve injuries flaccid paralyses are seen in the muscles supplied by the nerves. If the nerves are severely injured or avulsed, they do not heal and total paralysis occurs. When only tears and stretchings occur the nerves heal with considerable scarring, and partial paralysis results. Various degrees of muscular atrophy is seen, with partial function. Usually certain contractures develop, which are due to unbalanced muscle action, and these result in deformities and distortions to the neighboring joints. The bones of the affected extremity do not develop normally, frequently being smaller and shorter. The epiphyses develop later than in the unaffected bones. These bone changes are probably due to nerve disturbances as well as lack of normal usage.

The signs and symptoms of brachial birth paralysis vary with the location of the lesion and the extent of injury in the brachial plexus. Shortly after birth the newborn is usually unable to move the arm, and it rests flaccid by the side of the body. The elbow is in complete extension or mildly flexed with the whole forearm and arm inwardly rotated, making the hand rest in pronation. The infant cries when one attempts any manipulation of the extremity. Rarely does one find any swelling above the clavicle or shoulder region, and when noticed, it is mild. After several days the child begins to recover from the apparent lifelessness of the limb and moves some part of the arm, forearm or hand. In mild cases improvement is rapid and return of function, once begun, soon is noticed in every part of the extremity although a perfect recovery usually does not result.

There are three essential types of brachial birth paralyses; namely, the whole arm, severe or total type; the upper arm or moderate type; and the forearm or mild type. The majority of cases are the upper arm type in which the fifth and sixth cervical roots are involved, with loss of function of the abductor and external rotator muscles of the shoulder. In most of the cases the loss of function is only temporary and, with the repair of nerves, the muscles again take on life. By the time the nerves heal completely a permanent shoulder contracture is present and is maintained by the subcapularis muscle in internal rotation, and the pectoralis major and latissimus dorsi in adduction. The internal rotators of the shoulder have taken advantage of the paralyzed

* Read before the Third Councilor District Meeting of the Indiana State Medical Association, New Albany, Indiana, May 28, 1941.

[1] Steindler, Arthur: Reconstructive Surgery of the Upper Extremity, D. Appleton Co., 1923.

[2] Sever, J. W.: Obstetrical Paralysis—An Orthopaedic Problem, *American Journal of Orthopedic Surgery*. **14**:456 (August), 1916.

or weak external rotators by adducting and internally rotating the shoulder. A contracture results and it is impossible to externally rotate or abduct the shoulder normally. The deltoid muscle usually makes some recovery of function, especially the anterior portion.

Another group of cases, the whole-arm, severe or total type, has involvement of all the cords of the brachial plexus, and the whole extremity as well as the shoulder is paralyzed. Later the shoulder may present the same contractures as do the upper arm paralyses, but also an additional feature; namely, a pronation contracture of the forearm, and frequently a wrist drop with very little finger motion. This group shows improvement after several weeks, but the patients usually have a residual atrophy of the intrinsic hand muscles. A common contracture in this form of ailment is a flexion of the mid-phalangeal joints due to median nerve injury.

A third group is called the lower-arm type. In this group the whole arm is involved temporarily, but the shoulder and upper arm group of muscles show a quick recovery. There remains a weakness of the long flexor muscles of the fingers as well as an involvement of the intrinsic hand muscles, with complete wasting of the thenar and hypothenar eminences. Together with these findings is seen, at times, an involvement of the cervical sympathetic nerves which manifests itself in a narrowing of the palpebral fissure, a contracted pupil, a drooping of the upper eyelid, and at times a retraction of the eyeball. The latter symptoms are present when the eighth cervical and first or second thoracic nerves are injured, and they signify that a more serious injury to the plexus has occurred.

The muscular atrophy may be extreme where there is great damage to the brachial plexus, but it is rarely as extensive as the atrophy following infantile paralysis. The median nerve is less affected than the ulnar, and where the forearm and hand muscles are involved the outlook for recovery is not good.

As was previously stated in this paper, associated shoulder joint complications sometimes develop. Fractured clavicles occur and, when present, a tear or rupture of the lower cords of the plexus often is found. Shoulder dislocations occur, but usually not until several weeks following birth, and are found mostly in the posterior position although anterior ones are occasionally seen. Separation of the upper humeral epiphysis has also been found. In untreated cases of brachial birth paralysis the acromion process of the scapula often becomes hooked downward over the head of the humerus which prevents normal abduction of the arm. Hooking of the acromion process rarely occurs under the age of one year. Another finding, which is not quite as infrequent as is usually stated, is a subluxated head of the radius which is found in older children.

The three types of obstetrical paralysis described above are seen most frequently, but at times mixed lesions are found. There are a number of reports in the literature concerning the presence of a diaphragmatic paralysis, accompanying birth paralysis, found as an isolated lesion. The phrenic nerve supplying the diaphragm gets most of its fibres from the fourth cervical nerve, but in addition it receives branches from the third and fifth cervical nerves. One should always keep this lesion in mind in brachial birth paralysis, especially when the child has any cyanosis or rapid and irregular breathing. Recovery of the diaphragmatic function usually occurs within a period of a few weeks to nine months.

A definite prognosis in brachial birth paralysis cannot be made until after the first year of life when the permanency of the involvement is evident. Some cases obtain almost complete recovery after several months. Generally, the upper-arm cases offer a good prognosis so far as return of function is concerned, whereas the whole-arm and lower-arm types are permanently disabled to some extent.

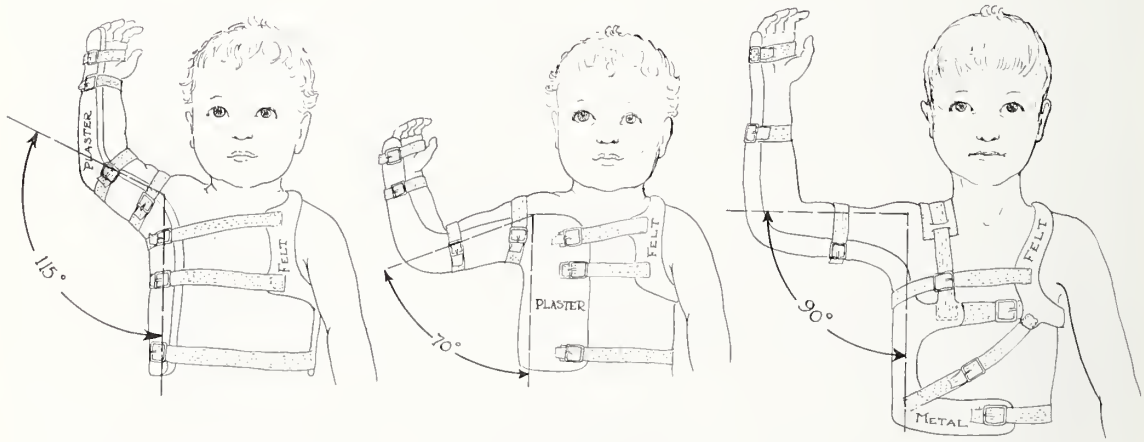
The treatment of brachial birth paralysis should start with prophylaxis against this condition. Obstetricians are fully aware of the extent and seriousness of this paralysis, for it falls into the group of birth injuries about which extensive studies are being made in the hope that the incidence may be lowered. Physicians and nurses should not be too hasty in their criticisms of practitioners, for cases have been recorded in which brachial birth palsy developed when no physician was present and the delivery was spontaneous.

Following the birth a thorough inspection of the function of the extremities of the baby is made by the obstetrician in his routine examination, and in brachial birth palsy he finds a paralyzed arm, forearm or hand. Usually the babe will flinch or cry on passive motion of the injured extremity when being washed or handled, and the attention of the nurse or physician may thus be attracted. When a flail, limp upper extremity is found, it usually means only one thing—a brachial plexus injury.

The symptoms of brachial birth paralysis may clear up rapidly when immediate treatment is instituted. In the early treatment the extremity should be placed in a relaxed position with the hand and forearm above the head, abducting the arm, flexing the elbow, and externally rotating the shoulder. This shortens the distance between the exits of the nerve roots and the acromion process of the clavicle, thereby taking any tension off the plexus in the hope of bringing any torn fibers closer together for healing. This position is retained by fastening the hand to a cap on the head, to the upper end of the crib, or by means of plaster. Also, certain metal splints and braces have been devised for maintaining this position, and a simple one should be fitted as soon as possible. The best

METHOD OF IMMOBILIZATION OF ARM OF NEWBORN WITH ERB'S PARALYSIS

Figure 1



1 PLASTER OR METAL SPLINT TO HOLD ARM ABDUCTED, ELEVATED, EXTERNALLY ROTATED, SUPINATION OF FOREARM IN EARLY ERB'S PARALYSIS

2 PLASTER SPLINT OR BRACE WITH ARM ABDUCTED AT 70° EXTERNALLY ROTATED WITH SUPINATION OF FOREARM, USED AFTER 3 OR 4 WEEKS

3 METAL BRACE OR SPLINT USED IN LATE TREATMENT OR POST-OPERATIVELY

Figure 2

brace is one which abducts the shoulder to ninety degrees, flexes the elbow to ninety degrees, and holds the humerus externally rotated until the forearm lies in the coronal plane, with a completely supinated forearm, the hand, wrist, and fingers being maintained in extension in a straight line with the forearm. Maintaining any more than ninety degrees abduction of the shoulder for a period of more than several weeks might predispose to dislocation. At no time should the arm be allowed to fall to the side of the body or your purpose may be defeated. Another reason why braces are used in the treatment of this condition is to prevent the tendency of the patients to develop contractures and deformities. Abduction and external rotation shoulder braces prevent forward movement of the elbow in front of the body and tend to eliminate the internal rotation contractures

of the shoulder as well as prevent dislocations of the shoulder. Usually a simple splint cut out of aluminum, with padding on it, is all that is needed for the newborn.

During the first few weeks after birth, the child with brachial palsy should have no active treatment for rest is essential and a splint or brace provides support. Gentle massage of the fingers, hand, wrist, and forearm can be carried out without disturbing the shoulder and brachial plexus. A complete tub bath is usually out of the question when a splint is in place for the pulling and jerking of the extremity during the manipulations accompanying the bath would defeat the purpose of the splint.

At first there is a painful neuritis in the involved extremity and after a few weeks, as soon as this condition is cleared up, the arm should be taken out of the splint several times a day. Passive motions of all the joints of the upper extremity are instituted, and a little later on active motions are started. At the time of removal of the splint one may use massage if it has not already been started by that time. As the function gradually returns, the splint or brace is left off during the day for gradually increasing periods but should be replaced during the sleeping periods and at night. After several weeks the shoulder, elbow, forearm, wrist, hand, and fingers should be placed through all normal ranges of motion several times a day to prevent contractures. This is an important point to be stressed by the physician or nurse in giving instructions to the parents. A well-trained nurse or physiotherapist should always guide the mother in these treatments, stressing the fact that the splint should be replaced under the extremity when treatments are finished. When motions in the muscles appear, one should gain the interest of the child by offering him toys, nursing bottles or other objects to promote usage of the involved extremity.

One should avoid the use of any electrical apparatus on children because such muscle stimulations cause pain which frightens and upsets them. At times half the battle in treating brachial birth palsy is in maintaining the confidence of the child. Heat lamps and non-painful heat radiations can be used previous to massage and manipulations. The patient is kept on a routine, as mentioned, for several months unless there has been so little recovery that one must consider the possibility of surgical repair of the nerves as an avenue of hope in recovering the lost power of the extremity. These operations are not very successful.

A patient with brachial birth paralysis should continue with physiotherapy guidance for several years after birth, and every effort should be made to impress the parents with the necessity of putting the extremity through a complete range of motions several times a day. Often it is necessary to wear a night-brace for several years in order to prevent severe contractures and disabilities. If shoulder contractures have occurred in internal rotation and adduction in spite of good treatment, or if the patient has been neglected by lack of medical care, then the offending muscles causing the deformity must be operated and released. A manipulation of more than a mild contracture may produce bone damage due to the leverage that is necessary to loosen the contracture. If there is a tendency to dislocation or subluxation, then stretching produces worse contractures. It has been found that conservative therapy over a period of several years will give a certain number of useful arms, but at times quicker results may be obtained from some of the operative procedures followed by intensive physiotherapy.

The shoulder joint contractures can be released by cutting the offending muscles, and any dislocation of the head of the humerus is corrected at the same time. Following these operations an abduction and external rotation splint must be worn, holding the arm at or above the shoulder level with the forearm supinated. The splint is worn day and night for a minimum of three months. Baking, massages and exercises are started several weeks following the operative procedures. There are many useful operations devised for the rehabilitation of the shoulders, arms, and forearms of these unfortunates, but they are too numerous to mention here.

In the post-operative care of patients, physiotherapy is very necessary. If it is not intelligently given, although the operative technic has been perfect, one is very likely to have a poor result. It takes months of patient care to make the muscle transplants work in their new locations and the unused muscles to regain function when the limbs have been operated and placed in suitable positions for proper usage.

In conclusion, the final results in the care of brachial birth paralysis will depend upon many factors, some of the important ones being as follows:

(1) The extent of the birth injury.

(2) Early treatment.

(3) Intelligence of parents so as to be able to grasp the significance of the condition and the need for persistent care by a physician, nurse or physiotherapist.

(4) The temperament, emotional status, and the intelligence of the patient.

DR. OLIVER WENDELL HOLMES SOME UNPUBLISHED MEDICAL CASE RECORDS

CLEMENT L. POSTON, M.D.
RICHMOND, INDIANA

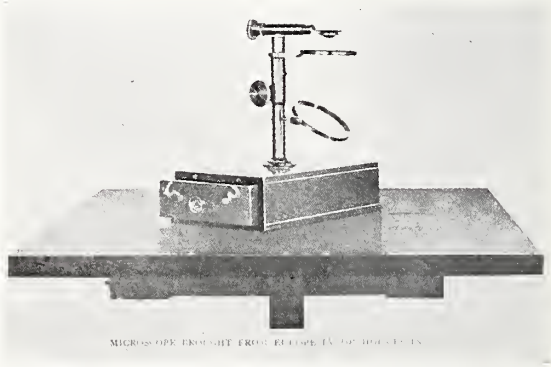
There are few physicians who today purposely pick up a book of Oliver Wendell Holmes' with the intention of reading it through. This neglect of the once-popular writer is altogether excusable and understandable, for Holmes, except for the loyalty of a small minority, belongs to the past. He belongs to the days of what Van Wyck Brooks styles the *Flowering of New England.*[1]

Holmes, Emerson, Longfellow, Lowell, Hawthorne, Whittier—all noble coevals, have given over to the modernist writers except for bits of their selected writings which still are "required reading" in schools and in college English courses.

Dr. Osler urged that a set of Holmes' complete works should be placed in every medical library[2]; yet, many physicians do not know or have forgotten that Oliver Wendell Holmes was a practicing physician for many years. True, a scholarly minority will recall his treatise "On the Contagiousness of Puerperal Fever" which created a furor when it first was published; still a smaller minority, perchance, may be acquainted with the fact that Holmes wrote scores of other medical and quasi-medical articles. Despite the fact that Holmes did not attain eminence in letters until he was approaching the half-century mark, very little has been written about his years of medical practice. Furthermore, had it not been for an accident of fate: namely, the founding of the *Atlantic Monthly* magazine, he might have remained a physician of local repute and an anatomy teacher throughout the major part of his eighty-six years of life. His popularity was purely local until his "Autocrat" articles in the *Atlantic Monthly* catapulted him to fame; after that, writing for publication and teaching left him little time for active medical practice.

In 1831, after a desultory and disinterested year at the Harvard Law School,[3] Holmes decided to transfer his interests and energies to the study of medicine. After obtaining a good foundation of medical knowledge in Boston, he went to Paris to study under the great Louis for two years. Dr. James Jackson of Boston whose son had also gone to Paris to study, wrote a letter in which he highly recommended young Holmes. "He has the true zeal," said Dr. Jackson.[4] This "true zeal" soon earned Holmes a place in the heart of the learned Louis, and when Holmes came home after two years of study he was one of Louis' favorite students.

The young doctor returned to Boston armed with a stethoscope and a microscope, both of which practically were curiosities on this side of the Atlantic. Furthermore, he was adept in their use, and even devised several improvements for the microscope. A short time later, when he began teaching anatomy, he conceived and had a microscope made—the first—which could be passed about the classroom for demonstrations in microscopical anatomy.[5]



Microscope invented and used by Dr. Holmes for class demonstration—from Ralph C. Larrabee, M.D., Quarterly of the Harvard Medical Alumni Association, October, 1902.

Microscope brought back from Europe in 1835 by Dr. Holmes —from Ralph C. Larrabee, M.D., Quarterly of the Harvard Medical Alumni Association, October, 1902.

[1] Van Wyck Brooks: Flowering of New England, E. P. Dutton & Co.

[2] Sir William Osler: Aequanimitas.

[3] John T. Morse, Jr.: Life and Letters of Oliver Wendell Holmes. Houghton-Mifflin and Co., 1896.

[4] M. A. De W. Howe: Holmes of the Breakfast Table, Oxford University Press, 1939.

[5] Ralph C. Larrabee, M.D.: *Quarterly* of the Harvard Medical Alumni Association, Oct. 1902 (Courtesy Dr. Frederic T. Lewis, Harvard Medical School).

Soon after Holmes' return from Europe, he was the recipient of two coveted medical honors: he was awarded three out of four "Boylston Prizes" for dissertations on medical subjects in the two years 1836 and 1837,[6] and, in addition, was offered the chair of Anatomy and Physiology in the Dartmouth Medical College in 1838.[7]

The Boylston Prize essays were published in a small book in 1838. They were scholarly, and they evidence a great amount of research on the inductive method. So respected were these essays for their clarity and conciseness that in 1881, forty-three years after their publication, the editor of the *Boston Medical and Surgical Journal* advised his readers to peruse them.[8] Intermittent fever had reappeared, and Holmes' article on the subject still was considered authoritative.

Holmes was popular at Dartmouth during the two terms (1838-39; 1839-40) he taught there,[9] and it was with regret that he forsook his work there because of the pressure of private practice and personal affairs in Boston. Seven years later, however, he was persuaded again to take up the teaching of anatomy, this time at his own *alma mater*, Harvard. For thirty-five years he held this position with much credit and to the inestimable delight and the edification of his students, and from 1847 to 1853 he was Dean of the Medical School.[10]

Dr. Holmes' reputation as a wit is so well known to his lay readers that little need be said concerning it, but his purely medical *bon mots* are naturally less well known. It was inevitable, because of his exuberance and his enjoyment of life, that his medical lectures and his conversation should very frequently sparkle with gaiety. In speaking to his class about the coronary arteries, he said: "This arrangement of the heart-muscle getting some of the blood which passes through it, for its own nourishment, reminds me of the analogous situation of the bank cashier! All the moneys of the bank have to pass through the cashier's hands; but the cashier, in order to live, must receive some of that money as his salary."[11] Too, no one but Holmes could have compared the coiled tube of the sweat gland to a fairy's intestine.[11] Once a student, about to be examined by Dr. Holmes, was asked his name, and the student gave it. Thereupon Dr. Holmes asked him if he was related to an apothecary who bore the same name. "Yes," said the student, "he is my father!" "Ah yes!" replied Holmes, jokingly, "I can see his liniments in your face!"[11]

President Eliot of Harvard University said: "Most of you have the impression that Dr. Holmes chiefly enjoys a beautiful couplet, a beautiful verse, or an elegant sentence. It has fallen to me to observe that he has other great enjoyments. I never heard any mortal exhibit such enthusiasm over an elegant dissection . . . it is his to know with absolute precision the form of every bone in this wonderful body of ours, the course of every artery and vein, of every nerve, the form and function of every muscle, and not only to know it, but to describe it with fascinating precision and enthusiasm."[12]

When Dr. Holmes chose a place to launch his practice, he selected his old boarding house at 2 Central Court, Boston.[13] Until he was married, he practiced there and ate at the table of Mrs. Brown, the "land-lady" in his later famous "Breakfast Table" series of books—the "Autocrat," the "Professor," and the "Poet." Here at 2 Central Court he received the "smallest fevers or favors" and prospered in a modest way. He was the attending physician at one of the city dispensaries, and a visiting physician at the Massachusetts General Hospital, and, from all accounts, did more than merely creditable work.

It is said of Dr. Holmes that he got a great deal of enjoyment from making his rounds of visits to his patients, and, true to the tradition of the old-time physician, took great pride in his fast-stepping horse. It was his wont to make his calls in one of those great, clumsy vehicles of that day, swung upon C-springs and therefore vibrating and lunging in every direction. The diminutive doctor used to appear, stove-pipe hat and all, dashing along the road, seeming at the same time in danger and the cause of danger, driving a skittish horse at an audacious clip.

During his years of medical practice Holmes kept painstaking and detailed records of his patients' illnesses. In addition, records of his numerous consultations, as well as each autopsy performed, were set down with care. Since Holmes' years of active practice extended from 1836 to 1849, there is enough available material in his medical records to make a good-sized book—and an interesting one. The following excerpts were selected, however, with the idea of furnishing a variety of subject matter and thereby allowing an analysis of Holmes' capabilities as a physician. Until recently no physician, or for that matter no individual, had ever studied these records. They are published here for the first time.[14]

---

[6] Boylston Prize Dissertations for years 1836, 1837, Charles C. Little and James Brown Co., 1838.

[7] A. L. S. to Prof. Reuben Mussey, Dartmouth Medical College, 1838.

[8] Ralph C. Larrabee: *Quarterly* of the Harvard Medical Alumni Association, Oct. 1902.

[9] The "Listener": The Dartmouth, October 19, 1894.

[10] John T. Morse, Jr.: Life and Letters of Oliver Wendell Holmes. Houghton-Mifflin and Co., 1896.

[11] George H. Monks, M.D., *Boston Medical and Surgical Journal*, January 26, 1928.

[12] William Sloane Kennedy: Oliver Wendell Holmes' Biography, S. E. Cassino, Boston, 1883.

[13] Correspondence with Mrs. Edward Jackson Holmes, June 20, 1938.

[14] Holmes' Medical Case Records, Widener Library, Harvard University. (Courtesy of Mr. T. Franklin Currier.)

CASE 1.
June 11, 1838
Amygdalitis

F. L. Dalton Aet. 24 sent for me Monday 11th June in the morning. Day before, Sunday, felt a little sore throat in the morning, increased a good deal before noon—pain grew worse—took nothing at tea time—little sleep in night. Thought he exposed himself to eool air on Sat. evening, being warm. On Sunday afternoon took a shower-bath. Had headache after this—attributed to bath. Had no chill.

When seen Monday morning P 110-120. Skin hot. T.—Thick white coat—voice pretty good. Both amygdala much swelled. They, with the uvula and arches of the palate are very red, with white patches as of coag. lymphe here and there. Swallows nothing but liquids, and then with difficulty. Took two doses of Ipec. and Ant. Tart. and (Lacti) and Senna, which produced vomiting and purging.

Course of the Disease. Fever rather less after the first day when he was seen—P being 108 and thereabout—less hard, skin less hot. Maximum of swelling and affection of voice on Wednesday evening (4th day of disease). At this time a soft spot being felt in right amygdala a bistoury was plunged into it—nothing but a little blood came away. The next morning he was a little better—but the voice still very much affected, feeble and nasal. On Wednesday a small group of herpes appeared to right of mouth—

Indisposition to read until Thursday (5th day). Sleeplessness at night—Dover's powder Wednesday evening—no effect, but was followed by nausea.

—Respiratory functions unaffected. Anorexia complete from Monday. On Friday asked for milk. May have it. Slight nausea on Thursday at one moment—Bowels not particularly affected—took a Seidlitz powder on Thursday which operated. Thirst moderate. Today (Friday—6th day) decided amelioration. P 104—skin temp. T. still thick white coat, voice improved—swelling and redness of tonsils less—more cheerful—no sleep or little last night. Saturday, June 16th—much better today—voice improved—p. 96—throat less red—his swelled white patches have principally disappeared. Tongue cleared to half an inch from tip. Took soda water with great relief from feverish symptoms—last evening pulse was rather full and hard 116—Slept little was up at 3 o'clock. Sunday, June 17th, P. 68, voice &c. improving.

Monday—some redness still in throat—no white patches, no fever—slept last night. A little appetite, tongue gradually cleaning from tip—that is, the thick coat is disappearing—a very thin secondary one has spread over the part cleared. Yest. morning told me that the night before he had hawked up blood and as he thought some but not much matter—he thought so by the taste—for he saw none.

Tuesday, 10th day—little inconvenience of any kind, not much appetite—p. 96—walked out to Art Gallery—Tongue clearing but has still a thick yellowish coat at posterior part. No dej. for a day or two—Throat still somewhat red and perhaps some little ulcerations.

Syr. Larch, ounces five.
Mel. Depurat, ounces one.
Alumin, drams one, as a gargle.

CASE 2.
Disease of Heart

Exam. with Dr. Inches July 2d N Grove St. (from Cambridge St) (1838)

Clarissa Wright Aet 9

Patient has been attended by Dr. Homans—

Four years scarlet fever, since two paroxysms of palpitation, difficult breathing, edema, at different intervals, sometimes once a month and lasting a week, but not uniform.—Present attack has lasted nine weeks and been more violent than the others.

Cannot lie down, sleeps in chair. Countenance pale, scarcely speaks, lips not livid, timid and easily worried—a good deal emaciated. P. 96 quite regular, rather small, breathing pretty easy.—T. clean, appet. good, bowels regular, urine very little when there is edema. At present little edema exists.

Direct Exploration. Left nipple ½ inch higher than right. Precord. region a little fuller than right side at corresponding point.

Percussion. Some Obscur. in prec. region.

Auscult. Strong bruit de soufflet accompanies first sound of heart—this (the soufflet) is heard in both backs.

Pulsat. regular, impulse somewhat heavier than not. Second sound pretty clear.

A grinding sound and the purring thrill are heard and (the latter felt) in the right carotid—not in the left. Jugular not dilated.

Dec 15th 1842. I saw this girl today at No. 17 Garden St. She has grown up quite tall and looks as well as most girls of her age—a little white in complexion, but appears about as well as her two sisters. She was very shy and averse to examination.

Percussion was not attempted. By immediate auscultation a clear and smooth bellows sound accompanies the first sound of the heart—the second is quite clear (P 104 regular, probably hurried by mental emotion) I should think the bellows sound loudest around the base rather than the apex—but the examination was very imperfect. I had no stethoscope.

(Impulse) appeared about natural.

(See page 19)

p. 19

Jan 22nd, 1844—Clarissa Wright

Saw her today—feet much swollen—by (report)—has been laid up for nine weeks. Countenance pale. P 116, small, *quick*, a little hard, regular.

Percussion. Quite clear on 4th rib (left side) good on 5th, seems to be nearly natural (but perhaps more flat at left lower part of precord. region)

Auscultation. Impulse somewhat heaving and hard—but not very much so—patient now tranquil.—Second sound clear, not loud, unattended with any abnormal sound. *First sound* attended with strong bellows murmur, long, blowing—*erve* represents it nearly—more so than *r*, which comes pretty near it. This sound is heard best near apex of heart to left of sternum—much better over left side than right.

Diagnosis. No marked disease of aortic or pulmonary valves. Regurgitation through mitral valve during ventricular systole, implying patency of left auriculo-ventricular orifice. A limited degree of hypertrophy probably accompanies this. No pulsation of jugulars. Breathing tranquil. Urine small. Bowels costive. Has had swelling of abdomen. See p. 37.

p. 37 Clarissa Wright (p. 19)

This patient's mother thinks her child was never well—Is disposed to believe the disease was born with her. In infancy and childhood has had various attacks requiring her to have her head raised or to sit up through the night. Has had at various times pain about precordial region and left arm extending as far as fingers. During present attack has had more general pains.

CASE 3.

Providence June 27th and 28th, 1838
Examined two patients with Dr. Parsons
Miss Champlin Aet 21

A little more fullness in left scapular reg. than in right. Percussion gives less sounds on and beneath left clavicle than at the same point on the

other side. Respiration is more feeble at summit of left lung before and behind than on the other side. No bronch. or bronch resp. detected. I thought there was some obscurity on percussion at lower of left back, but this was probably owing to clothes, etc. . . . This patient had a very well formed chest. The clavicles were by no means very prominent. The complexion and flesh pretty good. The left clav. and subclavic, reg. though not so resonant —cough often paroxysmal.

Tubercles of left summit?

—This patient died of phthisis about two years afterwards in Connecticut—particulars not known to Dr. Parsons.

No better commentary on Dr. Holmes and his work as a physician could be set down than the one which he himself wrote: "A medical man, as he goes about his daily business after twenty years of practice, is apt to suppose that he treats his patients according to the teachings of his experience. No doubt this is true to some extent; to what extent depending much on the qualities of the individual. But it is easy to prove that the prescriptions of even wise physicians are very commonly founded on something quite different from experience. Experience must be based on the permanent facts of nature. But a glance at the prevalent modes of treatment of any two successive generations will show that there is a changeable as well as a permanent element in the art of healing; not merely changeable as diseases vary, but changeable by the going out of fashion of special remedies, by the decadence of a popular theory from which their fitness was deduced, or other causes not more significant. There is no reason to suppose that the present time is essentially different in this respect from any other. Much therefore, which is now very commonly considered to be the result of experience, will be recognized in the next, or some succeeding generation, as no such result at all, but as a foregone conclusion, based on some prevalent belief or fashion of the time."[15]

[15] Currents and Counter-currents in Medical Science, Ticknor and Fields, Boston 1860.

PHONOCARDIOGRAPH STUDIES ON HEART DISEASES

HARVEY N. MIDDLETON, M.D.

INDIANAPOLIS

The recording of heart sounds is not new. For forty years clinicians have tried to standardize a process of sound recording. In 1894 Einthoven and Gulek, using a crude electrical device, obtained the first graphic record of the vibrations comprising heart sounds. Following the development of the string galvanometer electrocardiograph, Einthoven used it with some success in recording heart sounds. The results obtained during this period were variable and the necessary apparatus, though operable in the laboratory, was not suited to clinical use. The possibility of clinically practical heart sound recording awaited the development of some new approach to the problem.

Until the appearance in 1907 of the first electronic vacuum tube for the amplification of small potentials, this new approach was not possible, nor was radio amplification immediately applicable to the problem. Some research work was carried on, but the commercial development and clinical use of "vacuum tube" stethography did not achieve practical success until nearly thirty years later. In May, 1938, the first clinically practical stethograph-electrocardiograph, which records the heart sound simultaneously with the electrocardiogram, was made available to physicians.

The reading of the stethogram[1] is done in the following order:

1. The first heart sound occurs simultaneously with the "R" wave of the cardiogram. The second sound occurs at the end of the "T" wave. The third sound, if present, occurs .011 to .014

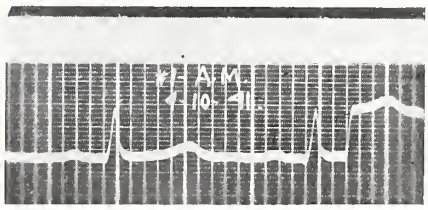


Figure A

seconds after the beginning of the second heart sound. The auricular sound occurs between the "P" and "Q" waves of the cardiogram. Between the first and second sounds is a space with smooth base line representing the systole. Following the second sound a similar space represents the diastole. The pattern is then repeated for each cycle.

2. Auscultation of the heart offers at times a very difficult problem for even the most skilled internist in determining what is happening during the various cycles of the heart. It is difficult to ascertain the time, intensity, and duration of a murmur, especially when the heart rate is above ninety beats per minute. The more readily discernible phase of the heart cycle is the systole. The systolic murmur is commonly heard without difficulty, but during the diastolic phase there are many things that might happen which cannot be

[1] Orias, O., and Braun-Menendez: The Heart-Sounds in Normal and Pathological Conditions. Oxford University Press, 1939.

so easily determined. Such occurrences are splitting of the second sound, diastolic murmurs, the third heart sound, and auricular systoles. Differentiation between diastolic murmurs and the third heart sound offers a very difficult task.[2]

The following are the most prevalent opinions in the literature today.[3]

The sign most commonly found with early rheumatic mitral disease is an apical systolic murmur, which is constant and of moderate intensity. The first sound may be partly or completely masked, so that the onset of ventricular systole is marked by the beginning of the murmur. During diastole there may be an extra sound in the early part or no sound at all, or finally a diastolic murmur may be heard. This murmur is often discrete and starts with the third heart sound or about the time in diastole at which a third sound would occur. It is now important to distinguish this diastolic murmur from a normal prolonged third heart sound. The two are heard more often when a patient has little or no cardiac enlargement and a mild or quiescent rheumatic infection. In severe cases of the latter, which is usually associated with tachycardia and moderate to marked cardiac enlargement, the diastolic murmur is more likely to be a poorly defined rumble of low intensity. A few severely ill patients with rapid heart rates (140 to 170) have an apparent presystolic murmur which lacks, however, the crescendo quality associated with definite mitral stenosis. This presystolic murmur rarely is accompanied by a thrill.

The systolic murmur is accepted by most students of rheumatic heart disease as evidence of mitral regurgitation. However, the diastolic murmur or rumble of early mitral involvement is soldom evidence of anatomic mitral stenosis. This fact was pointed out by Bland, White, and Jones,[4] who found that patients having died of rheumatic fever within one year of its onset rarely, if ever, had any narrowing or other deformity of the mitral valve. They suggested that the murmur might be caused in these special instances either by a "relative stenosis of the orifice in relation to the dilated ventricular cavity or by vibrations set up by the diastolic filling of a capacious cavity with relaxed and relatively atonic walls."

CASE REPORTS

The accompanying study of cases with phonograms taken synchronously with electrocardiograms and some also with venous pulse tracings will clarify some of these vague sounds.[5] Those in diastole, especially, pass by so rapidly as to allow little time for identification otherwise. The first four cases were diagnosed as rheumatic heart disease; of these three were active, and the fourth quiescent. The remainder show other cardiac abnormalities.

Case I. Miss N. R., female, age 9, was admitted to the Riley Hospital on October 25, 1940. She had the first attack of rheumatic fever on October 7, 1938, and a second in July, 1939, the latter without remittance. The heart was enlarged to the left; a harsh systolic murmur was heard over the precordium, and was best heard at the apex or mitral area. There was also a mid-diastolic rumble. The stethogram in the mitral area revealed a loud first sound with an intense crescendo murmur throughout systole. The second heart sound was followed in one-tenth of a second by a third heart sound. This was followed in turn by a faint diastolic murmur. The auricular sound was recorded between the "P" and "Q" waves of the electrocardiogram. In the aortic area a soft first sound was followed successively by a crescendic systolic murmur, a splitting of the second heart sound, and no diastolic murmur.

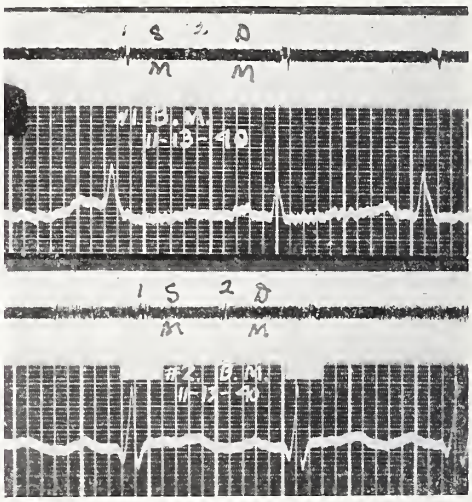


Figure 1

Case II. Miss B. M., female, age 8, was admitted to the Riley Hospital, October 29, 1940. Her first attack of rheumatic fever was at the age of three. In July, 1938, she was confined to bed, and in July, 1939, was allowed to be up. She suffered another attack in July, 1940, and at this time, November 13, 1940, she is acutely ill. The point of maximum intensity of the apex of the heart was in the sixth intercostal space in the anterior axillary line. A double murmur at the mitral area and a blowing diastolic murmur along the left sternal border were heard. The blood pressure was 110/30 millimeters of mercury.

The stethogram at the apex revealed the first heart sound starting with the "R" wave and followed immediately by a systolic murmur which becomes minimum just prior to the second heart sound. A diastolic murmur was also present, starting with the second heart sound and reaching minimum intensity just prior to the first heart sound.

A faint first sound was found at the aortic area, considerably masked by the diastolic murmur. The first sound was immediately followed by a systolic murmur which reached minimum intensity just prior to the second heart sound. Commencing with the second heart sound, there was a murmur throughout diastole.

[2] White, Paul D.: "Auscultation of the Heart. Sounds and Murmurs," *Heart Disease*, Macmillan, 1937.

[3] Alberto, C. Taquini, Buenos Aires, Argentina; Massell, Benedit F.; and Walsh, Bernard J., Boston, Mass.: "Phonocardiographic Studies of Early Rheumatic Mitral Disease," *Am. Heart Jour.* **20**:295, 1940.

[4] Bland, E. F.; White, P. D., and Jones, T. D.: "The Development of Mitral Stenosis in Young People," *Amer. Heart Jour.* **10**:995, 1935.

[5] Wolferth, C. C., and Margolies, A.: "The Various Types of 'Extra' Heart Sounds," *Medical Clinics of North America*, **14**:897, 1931.

Case III. Miss B. K., female, age 15, was admitted to the Riley Hospital, October 1, 1940. She had an attack of rheumatic fever in March, 1940, and was acutely ill on November 13, 1940. The point of maximum intensity of the apex of the heart was in the fifth intercostal space, ten centimeters from the midsternal line. Active pulsation was present over the precordium. A rough systolic murmur at the apex suggested mitral stenosis and a loud diastolic rumble. Later notation was made of a diastolic murmur heard along the left sternal

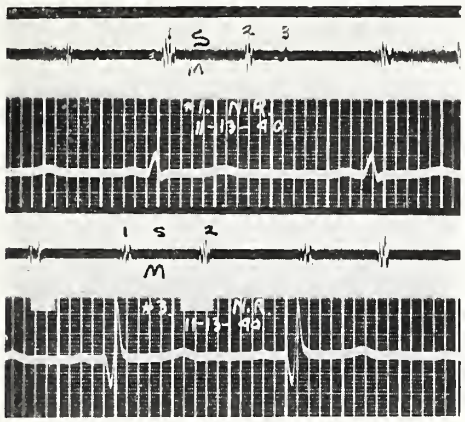


Figure 2

border. The diastolic murmur heard at the latter area suggested that the aortic valve was involved.

The stethogram taken from the apex showed auricular sounds followed by a loud first sound and a systolic murmur, a second heart sound of moderate intensity, and a third heart sound.

In the aortic area the sounds were all of moderate intensity in this order: A crescendic systolic murmur,

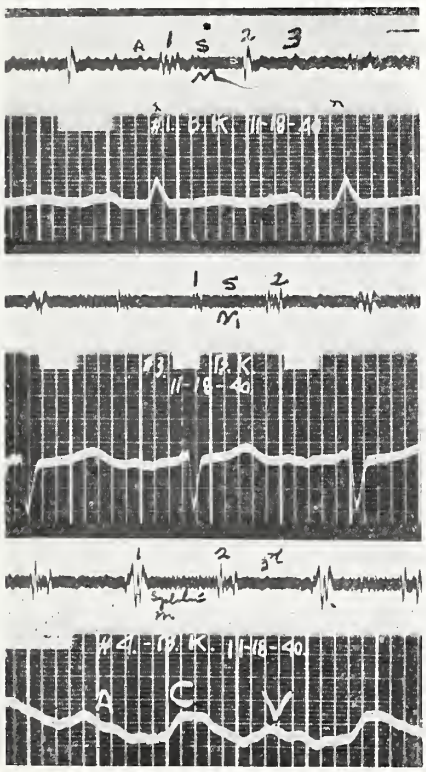


Figure 3

a splitting of the second sound, a faint diastolic murmur, and a third heart sound. The simultaneous stethogram and polygram revealed the extra vibrations. The extra sound occurred during the fall of the "V" wave of the venous pulse. This time relation indicated that the extra sound was a normal third heart sound.

Case IV. Miss D. R., female, age 9, was treated at her home. Prior to an attack of sore throat for a week in November, 1940, she had suffered shortness of breath on exercise for more than four years. There was a heaving pulsation over the precordium. The heart was not enlarged. A murmur throughout systole and a diastolic rumble at the apex were heard. The heart sounds at the base were of good quality without murmurs. The arterial pressure was 105/50 millimeters of mercury. The temperature was 101 degrees Fahrenheit, and the pulse was 110.

The stethogram showed a loud first sound with a faint murmur during two-thirds of systole, followed by a second heart sound. A third heart sound occured one-tenth of a second later with no diastolic murmur. The simultaneous stethogram and polygram showed the extra vibration. The third heart sound in the stethogram occurred simultaneously with the fall of the "V" wave of the venous tracing. This time relation indicated that the extra sound was a normal third heart sound.

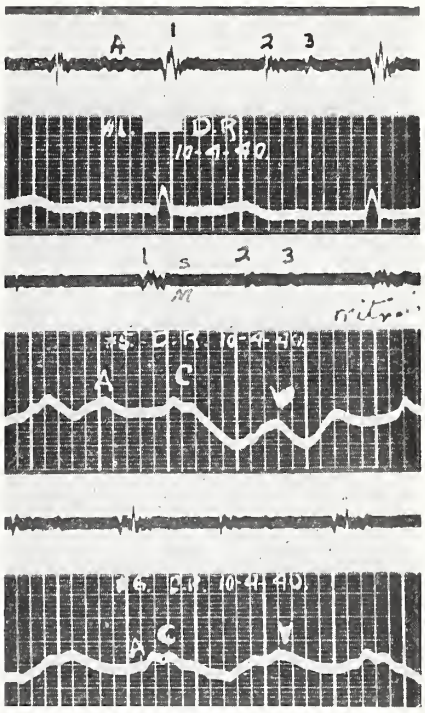


Figure 4

Case V. Mr. H. W., male, age 52, was admitted to the City Hospital, November 4, 1940, and four hours after admission he was operated on for ruptured appendix. Three days following the operation swelling and soreness, later severe pain, occurred in the calf of his right leg. On November 16, 1940, he felt a choking sensation in his chest which produced fear of death, but there was no pain. The heart sounds were of fair quality. No murmurs nor friction rub were heard over the pulmonic area. The pulse rate was 120 beats per minute. The stethogram and electrocardiogram showed the heart sounds to be of fair quality in the mitral area, and a faint systolic murmur was present. In the pulmonic area a series of fine oscillations passed

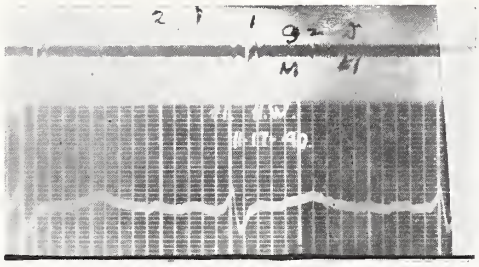


Figure 5-a

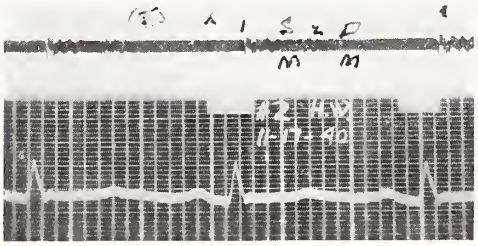


Figure 5-b

through systole and diastole without the alterations in frequency and character usually found in acute cor-pulmonale. The patient developed a second attack two weeks later and died.

Case VI. Mrs. B. H., female, age 61, suffered from dizziness, dyspnea, and orthopnea. The following sounds were heard: presystolic murmurs, a loud first sound followed by a systolic murmur, a second sound of moderate intensity, and a diastolic murmur. The arterial pressure was 180/90 millimeters of mercury, and the pulse was 125 beats per minute. A faint systolic murmur was heard along the left sternal border. Coarse rales were found at the bases of both lungs and a rapid pulsation above the clavicles in her neck.

The stethogram and electrocardiogram were made simultaneously at t..e apex. The first vibration occurred in the phonocardiographic record between the "P" and "Q" complex of the electrocardiogram, which

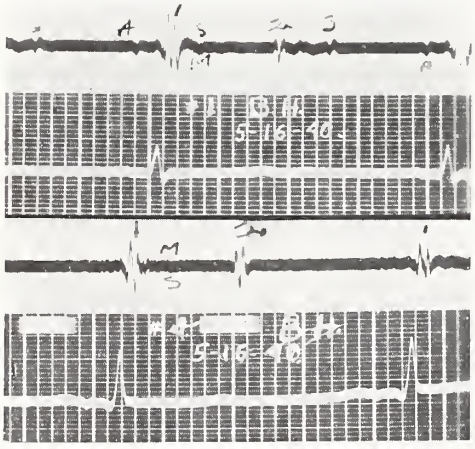


Figure 6

represents the auricular sound, followed successively by a loud first heart sound and a faint systolic murmur. The second heart sound was heard about four-tenths of a second after the first heart sound or at the end of the "T" wave. In diastole an extra sound was noted, which occurred about one-tenth of a second after the second sound. It was the third heart sound.

Case VII. Mrs. M. B., female, age 71, was a patient in the Long Hospital. She had experienced shortness of breath for two years and a burning feeling over the heart on exercise. There was edema of her feet and a moderately rough systolic blow at the mitral area. Along the left sternal border and base a blowing diastolic murmur, which was also in the mitral area, was heard. The blood pressure was 140/40-20 millimeters of mercury.

The stethogram, electrocardiogram, and venous tracing revealed a systolic and a diastolic murmur. The systolic murmur occupied most of systole, and the diastolic murmur commenced with the second heart sound and diminished as diastole progressed, tending

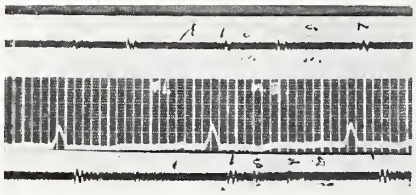


Figure 7-a

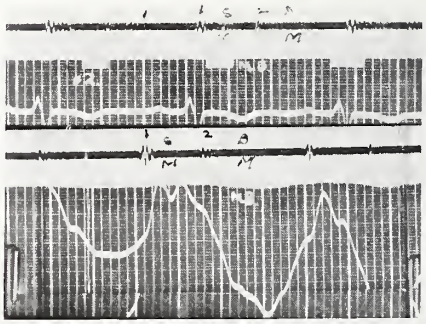


Figure 7-b

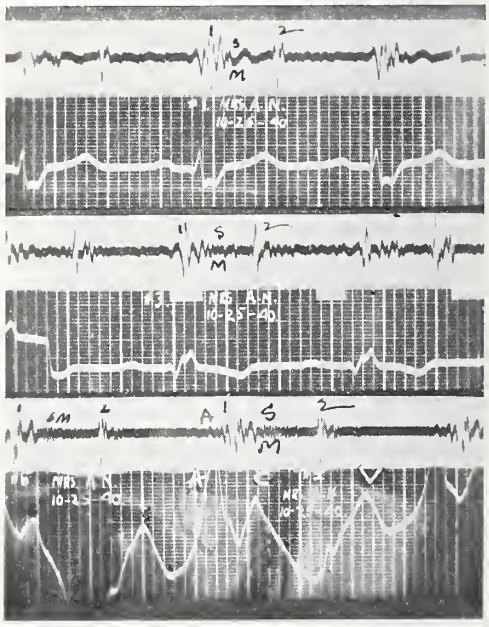


Figure 8

to become minimum just prior to the recurrence of the first heart sound. At the aortic area a loud first sound was revealed, followed by a systolic murmur which was of maximum intensity during mid-systole. The second sound was masked by the diastolic murmur. The phonocardiographic and venous pulse tracings were made simultaneously over the jugular vein.

Case VIII. Mrs. F. N., female, age 75. Shortness of breath and dizziness began seven or eight years ago. In the mitral area there was a presystolic murmur, a loud first sound, and a harsh systolic murmur. In the aortic area there was a loud systolic and a soft diastolic murmur and an accentuated second sound. There was present in the stethogram a barely audible auricular sound, recordable but seldom heard because its pitch was below human audibility. The venous pulse tracing was taken over the right jugular vein. The auricular sound was not so obvious, but the slight deflections of it occurred simultaneously with the peak of the "A" wave. The first heart sound occurred during the down slope of the "A" wave and terminated with the peak of the "C" wave, and the second heart sound occurred during the upslope of the "V" wave. A systolic murmur trailed off the first heart sound and had a duration of about two-thirds of systole. The higher pitched systolic murmur commenced with the peak of the "C" wave of the venous pulse tracing. A ripple, marked x on the venous pulse tracings, occurred between the "A" and "C" waves. This sort of ripple is a common occurrence in the venous pulse tracings and corresponds to the first heart sound.

Case IX. Miss G. R., female, age 35, was admitted to the City Hospital on October 9, 1940. She had complained of headaches for two years, associated with dizziness and slight blurring of vision. Fundi exhibited marked sclerosis with papilledema, hemorrhage, and exudate. The heart was enlarged to the left. There was a systolic murmur at the apex and the aortic area. The blood pressure was 254/164 millimeters of mercury. On October 15 it was noted that a systolic gallop and a splitting of the second heart sound were heard at the base and apex. The blood pressure was 220/130 millimeters of mercury. The apex rate was 100 beats per minute. The stethogram showed a decided and accentuated presystolic gallop between the "P" and "Q" waves of the electrocardiogram and splitting of the second sound at the base and apex. The first heart sound started in the normal location with respect to the "R" wave of the electrocardiogram.

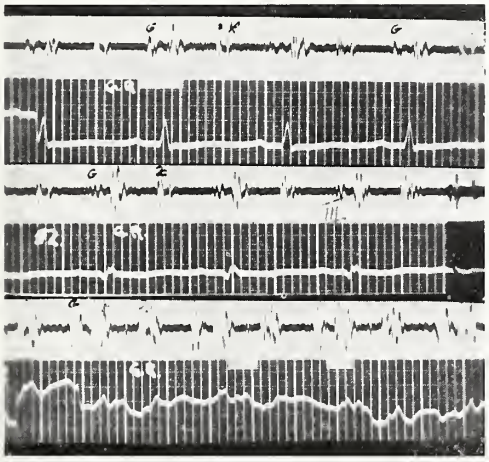


Figure 9

Case X. Mrs. E. M., female, age 22, treated at home, October 9, 1940. She had pain in the right lower quadrant of the abdomen. There was tenderness without rigidity. Her temperature was 98.6 degrees Fahrenheit, and her pulse rate was 110. The blood pressure was 130/80 millimeters of mercury. A systolic murmur was heard at the apex and the aortic area. In the pulmonic area a gallop rhythm, a systolic murmur, a splitting of the second heart sound, and a diastolic murmur were heard.

The stethogram and electrocardiogram taken simultaneously showed a splitting of the first sound, a loud second sound, and a diastolic murmur. The stethogram and polygram taken simultaneously showed the first sound splitting and trailing off into a short systolic murmur. The portion of the first heart sound extending beyond the peak of the "C" wave was a systolic murmur. The second sound was loud and a decrescendic diastolic murmur extended beyond the peak of the "V" wave. There was no gallop rhythm in the stethogram. The polygram differentiated a prolonged first sound from a second sound with a subsequent short murmur.

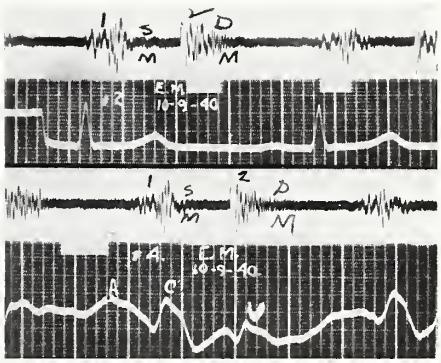


Figure 10

SUMMARY

The stethograph is an instrument of value in the diagnosis of cardiac disease. Among its many uses the following are especially emphasized in this paper: differentiation of diastolic murmurs from third heart sounds, more accurate localization of heart sounds, and the diagnosis of acute corpulmonale. Examples of its use are given in a series of ten cases in which the stethogram, electrocardiogram, and often the sphygmogram were taken.

BECAUSE THE INDIANAPOLIS SESSION IS IN PROGRESS
WHILE THIS ISSUE IS ON THE PRESS,
REPORTS OF MEETINGS AND CONVENTION NOTES WILL BE
PUBLISHED IN THE NOVEMBER ISSUE.

NON-MEDICAL READING FOR PHYSICIANS*

HARRY J. WEIL, M.D.
INDIANAPOLIS

To talk to you about good reading, outside of medicine, is like carrying coals to Newcastle. I am sure you need no tips on that from me; however, I have been assigned this subject and, in my small way, will relate what has been of interest to me.

If you enjoy comedy, tragedy, romance and philosophy, you can find all of these in the Old and New Testaments. Several years ago the thought struck me, "How did religion originate?" I began doing some research and for a period of over three years it provided a most interesting study. It stimulated me to read the philosophies of Confucius. The recent use of the slang expression, "Confucius Say," often made me think: "Would it not be a wonderful thing if every one knew and practiced what Confucius did say."

I realize that after reading medicine most of us would rather turn to lighter things. Many eminent men like to read Nick Carter and detective stories in general; Ehrlich did this. While it was reading, it still afforded a complete mental relaxation.

There have been many interesting books written recently by physicians. It seems that the only prompting they needed was someone to write the first book. I enjoyed *Horse and Buggy Doctor* by Hertzler, *An American Doctor's Odyssey* by Heiser, *American Medicine and the Great Doctors* by Sigerist, *Noguchi* by Eckstein and several others whose titles I have forgotten. In this class there is a book by Eugene DeSavatich entitled *In Search of Complications.* It has a style of composition all its own. This book was very entertaining and instructive.

Many doctors like to read history, and for them I shall mention an author who holds me by his charm as a writer, namely, James Truslow Adams. His two volumes, *The March of Democracy* and *The Rise of a Nation* read like a novel. *The Epic of America* is another of the many books he has written. In this one he makes the statement that we are of a nervous temperament because of the sudden changes in temperature due to the lack of barriers to the north and south of us. This statement was interesting, coming from a layman, for recently there has been some research work done relative to the effect of barometric pressure upon the disposition of people. I purposely left until the last my shrine in literature, the immortal works of Shakespeare. It is astounding to me that of the millions upon millions of minds just one, and only one, tops them all. It would take someone more versed on this subject than I to present him adequately to you; therefore, I turn to more intelligent minds and quote, "There is probably no artist whose greatness has more stood in the way of his fit appreciation than has been the case of Shakespeare. On one hand and the other he has cast a mist that obtrudes between the eye of the holder and his own proper person and achievement! The splendor of his stature, the breadth of his outlook, the strange quality of his vision, partly account for this."

Another author has this to say, "It is seldom that authors, though more studious than Shakspeare, rise much above the standard of their own age; to add a little to what is best will always be sufficient for present praise; and those who find themselves exalted into fame are willing to credit their encomiasts and to spare the labor of contending with themselves." Another says, "There are few, probably, who have not derived from Shakespeare's writings at least some part of the inspiration of their lives, and have not found in his wise words encouragement in times of difficulty and distress. He is above all writers the poet of nature; the poet that holds up to his readers a faithful mirror of manners and of life. His characters are not modified by the customs of particular places, unpractised by the rest of the world. They are the genuine progeny of common humanity such as the world will always supply and observation will always find. His persons act and speak by the influence of those passions and principles by which all minds are agitated and the whole system of life is continued in motion. In the writings of other poets a character is too often an individual. In those of Shakespeare it is commonly a species. This explains the attraction which the immortal works of our great poet has for us today and it is the fundamental reason for the willing homage we pay to his genius.

"To Shakespeare man's nature is complex. If his soul can reach into the unseen world, his body is but of the earth and has appetites in common with the beasts. How clearly, for example, Hamlet puts this teaching: 'What a piece of work is a man! how noble in reason! how infinite in faculty! in form and moving how express and admirable! in action how like an angel! in apprehension how like a god! the beauty of the world! the paragon of animals!'

They continued in their homage through the centuries. Again I quote, "When the human spirit, joyful or disconsolate, seeks perch for its happy feet or stay for flagging wings, it comes back again and again to the great tree of Shakespeare's genius, whose evergreen no heat withers, no cold blights, whose security no wind can loosen."

Why are the writings of Shakespeare such ever-

* Read before the Indianapolis Medical Society April 22, 1941.

lasting solace and inspiration? Because in an incomprehensible world, full of the savage and the stupid and the suffering, stocked with monstrous contrasts and the most queer happenings, they do not fly to another world for compensation. They are of Earth and not of Heaven. "They blink nothing, dare everything, but even in tragedy never lose their sane unconscious rapture, their prepossession with that entrancing occupation which we call *life*."

On the three hundredth anniversary of Shakespeare's death the above quotations were written by great men in literature from all over the world. In bringing this article to an end, I quote the following eulogy: "God created the world in six days. The seventh day He rested. Why? He had a special work to do. He wished to place the entire beauty of the creation in one unique life. He desired to mix the light and the darkness, the day and the night, the sweetness of angels and the fire of hell, the unknown depth of the sea and the undiscovered summits of the mountains, the charming song of the nightingale and the hideous hissing of the snake, the summer's glow and the winter's cold, the scent of the rose and the odor of poisonous plants, and to put all this commingled in one person in one single creation. And He did it. God created Shakespeare!"

The foregoing praise of this great writer at least puts my mind at ease and coincides with my personal adoration for the work of this seemingly superhuman mind. I subscribe to all that others have said in his praise, and my life has been made much easier and vastly more pleasant in having known him—as I feel I do.

ABSTRACT

PROTECTION AGAINST EPIDEMICS WILL REQUIRE CAREFUL PLANNING

"Clearly the insulation of this country from the disease consequences of war will prove a colossal task and will require the most careful planning and effort," *The Journal of the American Medical Association* for August 2 declares in an editorial on "War and the Spread of Epidemic Diseases." *The Journal* continues:

"Again the four horsemen of the apocalypse are riding. Once more war, hunger, disease and death destroy mankind. The horsemen of today travel with the increased speed of mechanized transportation. Today the possibilities for sudden and widespread outbreaks of disease arising far from their endemic foci are more likely than ever previously.

"Among the endemic diseases which are kept from epidemic proportions only by the most stringent public health activities are malaria, yellow fever, typhus and plague. News dispatches from Europe indicate already that typhus is being held in check only with the greatest difficulty. Indeed, with the fragmentary information available it has probably reached serious epidemic proportions already in certain areas, especially Poland and the Balkans.

"No doubt plague, as far as this country is concerned, is a problem of greater potentiality. Epidemiologic data give definite information on the comparative permanence of endemic foci of plague infections in localities many years after epidemics of the disease have subsided. Once plague has appeared in a community, especially in cities with extensive port facilities, all known control measures for this disease must remain actively employed by the local public health agencies for prolonged periods. There can be no cessation of control measures. These demand the careful checking of the infectivity of fleas combed from rats and other rodents. This is done by the inoculation of selected and areanotated pools of fleas into guinea pigs, and the subsequent identification of the plague bacillus by suitable culture methods when evidence of the disease occurs in the guinea pigs.

"Although atmospheric conditions are still an obscure factor in the spread and periodic acceleration in virulence of many diseases, in plague relative high humidity and low and equitable mean temperatures seem to play an important part. Moreover, it is possible in areas in which the infection has remained subdued or dormant that atypical unrecognized lesions on necropsy may occur in rats; perhaps some of these rodents may be healthy carriers. Under such circumstances, inoculations of pools of fleas may become an important source of information.

"Reported plague infection has been recently proved in fleas from rats in San Francisco, from ground squirrels in Kern County, California, from ground squirrels in Ada County, Idaho, and from a marmot in Malheur County, Oregon.

"In San Francisco County the health department, with the assistance of the United States Public Health Service, has maintained a system of plague control since 1908, consisting of the enforcement of ratproof ordinances in buildings, trapping, poisoning and examinations of the carcasses of rodents by necropsy, laboratory cultures when necessary, and, finally, in 1938, inoculation of pools of fleas into guinea pigs.

"In spite of the fact that the rat has always been regarded as the source of epidemics in human beings, the discovery of widespread distribution of plague in the ground squirrel and perhaps other rodents is not reassuring. To control this serious menace there must be a careful integration of the control activities of cities, counties, states and the federal government, with the use of trained personnel and the appropriation of adequate funds. If this is not done, the consequences may be indeed tragic."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943

OCTOBER, 1941

Editorials

SELECTIVE SERVICE INELIGIBLES

Much has been said and much has been written concerning the discovery that thousands of our young men are disabled, from one thing or another, to the extent that they are rejected from army service. To medical men this, of course, was not news; we have known it for years, even long before the draft examinations incident to the first World War. The lay press, however, has made a great story of it, and even now we find articles in our newspapers and magazines deploring the situation. From a perusal of these articles one might be led to believe that this situation exists only in the United States of America, and that we have fallen down seriously on the health job. However, other countries that have military training as a requirement for their youth have long known that too many are unfit for such service. It is, therefore, interesting to note that even Germany, the country that has been war-mad for generations and for decades has been building toward war, has found that its youth is not in good physical condition.

Dr. Max Gerson, in the *New York State Journal of Medicine* of July 15th, writes most entertainingly on the subject "Feeding the German Army." Gerson, long known as a Viennese food expert, who recently located in New York, tells of the food requirements of the vast German army. But the thing that intrigued us most was the statement that back in 1934 when Adolf Hitler was busily engaged in building a German army, he was amazed to find that only half of the young men in the city of Kiel were sturdy enough to join the army; that only 12.6% might be regarded as perfect human specimens!

Tooth and mouth diseases, many of them due to the lack of Vitamin C, largely accounted for the conditions found in the German youth. Mr. Hitler at once set about to correct these things. He took the best men available and at once began a corrective process. Many of the disabilities were overcome, and the result is well known throughout the world today.

Dr. Gerson quaintly remarks, "the Germans believe that a dollar will buy more vitamins in the market than in a drug store"; hence, the German army cooks do not add vitamins to the food. They preserve and use the natural vitamins already stored in the food by Dame Nature. The methods of preparation of these foods in the army field kitchens is worth the attention of anyone interested in dietetics, whether it be in the home, kitchen, or elsewhere.

Much might be written about Dr. Gerson's revelations regarding the feeding of an army of millions; the manner in which food is varied to suit the different types of service and the climatic conditions prevailing in the various branches of the army. Our present concern and interest, however, is centered in the fact that even in Germany, where war has been uppermost in the minds of the majority of the people for many generations, it was found that the youth of the nation were not fit for service.

From this most illuminating article we can learn much. We already know that too many of our American youth are not physically fit; we have known this for a long time but seem to have done little about it. It is our belief that if the American press would devote as much space to educating the American people what to do about it as they devote to talking about the "decadence of the American youth," much would be accomplished in a few years. It might be well to remember that in less than five years Adolf Hitler made a darn good army out of a bunch of nondescripts!

EPIDEMIC INFLUENZA

Influenza is an endemic infectious disease which frequently flares out in epidemic proportions. Minor epidemics appear at short irregular intervals. In the past century great pandemics have occurred in 1830-33, 1847-48, 1889-92, and 1918-20. In the major epidemics morbidity and mortality reach appalling levels.

Only in the past decade has influenza been definitely established as a disease entity with a filterable virus as the etiological agent. The term *influenza* has heretofore been indiscriminately applied to a great variety of severe acute upper respiratory infections. *Grippe* and *flu* are used synonomously with influenza. In clinical practice an unusually severe common cold with prominent

constitutional symptoms is, as often as not, called *flu*.

Influenza presents no pathognomonic signs or symptoms which permit an accurate clinical diagnosis in the present state of our knowledge. The one outstanding feature of the disease is its tendency to assume epidemic proportions. Its onset with chills, fever, headache and general aching, prostration and signs of an acute nasopharyngitis are not definitely characteristic. In a recent study of two mild influenza epidemics the symptoms complained of by more than fifty per cent of the cases, in the order of frequency, were cough, headache, chills, lassitude, nasal discharge, sweats and malaise. It is common knowledge that the clinical picture is variable in different epidemics and in successive stages of the same epidemic.

Since the initial isolation of influenza virus more than 125 strains have been reported. In various epidemics the virus has been obtained from the throat washings of a high percentage of cases as determined by inoculations of ferrets with the washings. Serological studies of patients' serum show an increase in antibody titer against the virus, rising rapidly after the fifth day of the disease. No increase in neutralizing antibody titer occurs in non-influenzal respiratory infections. Correlation of clinical, epidemiological and laboratory studies now make possible the certain diagnosis of influenza. The clarification of the etiology of influenza and the development of positive means of diagnosis represent a great step forward in the advancement of our knowledge. Close correlation of clinical and laboratory studies of successive epidemics may eventually establish definite criteria by which a true clinical diagnosis can be made. These new developments may ultimately lead to the discovery of specific methods for the prevention and cure of influenza.

It may be hoped that experience gained from work with the influenza virus will throw new light on the greater problem of virus disease in general.

SUICIDES

Suicide accounts for such an appalling number of deaths that the many lives sacrificed each year rank it as one of our foremost killers. It is quite timely that some effort should be made to investigate the cause or causes of an act that is so repugnant to the normal individual.

The will to live or the will to die are phychological reactions based on an experience that has been either pleasant or unpleasant. Pleasant experiences stabilize the emotions, whereas unpleasant experiences produce emotional instability or exaggerate an already unstable nervous mechanism.

No one with sufficient reasoning power to accept his lot in life philosophically ever thinks of suicide. Such a man is daily engaged in the search of the goal that is sought by every man and achieved by few—this goal is true contentment. The road to this objective lies in the ability of the individual to adapt himself to his environment. Numerous teachings and philosophies have been developed for the purpose of enabling man to cooperate better with his environment, yet there are those who find life totally incompatible with their environment and consequently accept suicide as a psychological refuge from their very existence.

Frequently refuge is first sought in a feigned illness, alcoholism, or the use of drugs; but the habitual use of harmful drugs, alcohol, etc., serve only to aggravate the confusion of a depressed mind and to accelerate the demand for further psychological refuge in suicide or an attempt at suicide. It is the attempted suicide who often becomes a cripple for life and not infrequently a burden on the state.

There comes a time in the life of every man when a psychological crutch is needed to tide him through a raging storm of mental distress and bewilderment. The church supplies by far the greatest number with this crutch, but unfortunately the church has, to some extent, lost its influence. The old fashioned family doctor has served a very useful purpose by never failing to lend a listening ear to the patient in mental distress. It is doubtful if the physician of today fully appreciates the high esteem in which the family doctor of yesterday was held by his patients. His soothing influence no doubt prevented many a suicide because he afforded the individual an opportunity to bare his soul with complete confidence and with implicit faith in the ability of the doctor to give relief.

Many delude themselves into believing they are able to get along without psychological support, but in reality very few have sufficiently developed a philosophy of their own to withstand the shocks of life in a world where the law of the survival of the fittest prevails.

Suicide is not strictly a medical problem and cannot be solved by viewing it solely from a medical angle. It is, however, a problem that has medical, religious, social and economic aspects and should be scientifically investigated from these various viewpoints.

The apparent increase in the number of suicides may well give us cause to ponder over the reason for such a weakening of the moral fibre. It might be well to remember that the farmer selects his seed; the herdsman breeds only the best of stock; but we humans breed and breed, giving far too little consideration to quality and far too much consideration to quantity.

The state, at considerable cost, affords protection to the mentally sick with known suicidal tendencies, but by far the greatest number of suicides occur among that portion of our population that heretofore has shown little or no evidence of mental change. It is this group that demands our attention if there is to be any reduction in the number

of deaths. The only solution to the problem lies solely in the field of prevention, but the approach is not easy and little progress can be expected so long as there are so many divergent views as to the proper course to pursue.

The physician, naturally, is interested in the preservation of life, and any program that is fundamentally sound from a moral and scientific viewpoint will undoubtedly enlist the support of the medical profession.

DOCTORS ANONYMOUS

Many pathologists doubtless will be surprised to find that this designation is applied to them in the title of a book recently published by William McKee German, who, himself, is a pathologist. He says he wrote the book because "the pathologist is the unknown man of medicine," and he is sure that more should be known about the work that goes on in our clinical laboratories. "Doctors Anonymous," (Duell, Sloan & Pearce, 1941), makes fascinating reading for both layman and physician. Even the pathologist, to whom most of the book might well be "old stuff," will find that German's vivid, direct, and arresting manner of telling his story carries one along with the pure interest of the narrative.

The book is verbally illustrated by numerous case reports which are used to represent the many ways in which the pathologist aids the medical profession in its work. Some of these case reports are exciting, some are sad, some are frightful, and some are laughable; but all are interesting as only a real story-teller could make them. The last chapter, however, interjects a rather disturbing note, for the reader is reminded that no matter how useful a pathologist may be in a community, and no matter how badly the medical profession may need his help, there are far too few pathologists to go around.

There are about six thousand hospitals in the United States which have the *approval* of the American Medical Association, but there are only about seven hundred pathologists who are qualified to conduct the clinical laboratories in these hospitals. This, undoubtedly, indicates a great lack of diagnostic facilities in several thousand American hospitals. The fact that we have the best medicine, the lowest death rate, and the longest life expectancy of any country in the world, or of any time in the world's history, does not alter the obvious conclusion that if there were several times as many pathologists as there are, the medical profession would have a laboratory diagnostic service which, accordingly, would be several times as efficient as it now is.

There are a number of reasons for the extraordinary disparity between the great need for pathologists and the extreme lack of those who may fill that need. One of the reasons for this lack is the comparative youth of this particular medical specialty as evidenced by the fact that the first physician to limit his practice to clinical pathology is still living. Another reason, which is a corollary of the first, is that there are very few places in the country where young medical graduates may obtain training as pathologists, and even these few places are never entirely filled. Thus we are left to the obvious conclusion that the medical student and the young medical graduate do not consider pathology a desirable field for specialization. However, the chief reason for the dearth of pathologists brings us back to the title of Doctor German's book. The pathologist is the "Doctor Anonymous," and as a result receives so little professional and financial recognition for his services that few are willing to spend four years after they graduate from medicine in training to become pathologists. The fact that the pathologist is a "doctor's doctor," and, therefore is entirely dependent on the medical profession for his practice and his livelihood, makes his predicament no more desirable, for the medical profession often fails to utilize the services of the pathologist even when they are available. Not only does the medical profession simply fail to support a pathologist in his work, but strange though it may seem, all too many physicians take an active part in a movement which may well hasten the end of the practice of pathology as a medical specialty.

A major part of this destructive movement is the rapid increase in the number of clinical laboratories conducted by laymen. These laymen in their laboratories are practicing medicine in direct competition with the medical profession just as certainly as if they were attending patients at the bedside. It is a sad commentary that such laboratories are sustained entirely by the medical profession who refer their work to these laymen.

On this discouraging note Doctor German ends his book. He admits that he may be unduly impatient when he expects a medical specialty which is less than three decades old to receive the recognition which may be its due, but the fact remains that the first generation of clinical pathologists is growing old in the service and that not enough of the younger generation is preparing to carry on the work. The future of the specialty of pathology depends on the understanding and active support of the medical profession, and if this understanding and support is not forthcoming very soon the pathologist will not only be *anonymous* but he will be *non-existent*.

HAVE YOU COMPLETED AND MAILED YOUR A. M. A. QUESTIONNAIRE? IF NOT—

DO IT NOW!

INDIANA IN OCTOBER

The State Department of Conservation directs the attention of Hoosier residents, as well as lovers of Nature, to Hoosier-land, which is at its best in October. "Injun Summer," the name being taken from that greatest of cartoons, drawn by that greatest of cartoonists, Indiana's own John T. McCutcheon, and printed many years ago in the *Chicago Tribune*. Ever since the cartoon was first printed the Tribune has repeated it every fall, much to the delight of its readers.

Indian Summer seems to have its headquarters in Indiana; for in no other state, not excepting the wide prairie expanses to our west, is such a season found. The delightful tang in the air by day, the twilight haze that seems to hang on until utter darkness overtakes, the calm of night—all of these tend to make this time of the year the most perfect period in all the four seasons.

Indiana has taken long strides to assure her residents and guests that they will be well repaid for a tour in 'most any section of the state. Her highways are A-1; no other state offers better pathways than Indiana.

Strange to say, Indiana is not well known to thousands of her residents. Folk living in the southern part of the state know little about what goes on in the northern section. They do not know of the dairyland in the northeast sector of their state; they know little of the great manufacturing center in the Calumet region; they have not heard of those parts of the state which are in the main populated by certain sects, such as the Amish of northeast Indiana.

On the other hand, the northerners know too little about southern Indiana. They have, of course, heard of Brown County—many of them have visited this delightful Eden and, having done so, are content in the belief that they have seen southern Indiana. This is not so, for "they hain't seen nothin' yet!" Until one goes well below French Lick one has not seen southern Indiana. It would be a safe bet to head the car in any direction; keep your eyes wide open and see what is going on. Ask the natives some questions as you go along—many of them will offer suggestions in regard to little side trips that will be worth your while. See Indiana at her best. See her in all the glories of "Injun Summer"!

There is something very intriguing about travel in Indiana; no matter in what section of the state one may drive, there is something worth seeing. Of course, our first love is the hill section of southern Indiana. Hills make interesting scenery. One drives along in such a section ever wondering just what lies beyond yon hill. These hills make for winding roads, the delight of every Nature enthusiast. Indiana hills are famous. They rival many mountain sections in that these sections are not waste land.

The Conservation Department has reason to be proud of its State Park regions. They are to be found in every section of Indiana, and each park is worth a thorough exploration. The park hotels, taverns, camping grounds, or what have you, are now in perfect order, and your stay at any one of these will be a most pleasant recollection in years to come. The swimming pools will be closed but the hostelries will remain open. Dame Nature will have done her part, come October, in painting scenes such as have never been shown on a canvas. A veritable riot of color awaits the motorist who takes an October vacation in Indiana.

WHAT ONE MAN THINKS

For many years we have been reading "Vox Pop" communications in our daily newspapers. We often get much pleasure from these, for it is here that America speaks right out. We came across one such article in the *Indianapolis Star* the other day, a letter that interested us to no small degree.

The writer opens his letter with the succinct statement, "Some people don't stop to think of the importance of choosing a doctor." He then goes on to tell what he regards as points to be considered in choosing a doctor. His comment is so virile that we repeat a few paragraphs:

> "One can, by taking pains, apply to the choosing of a doctor the same common sense and intelligent principles which guide him in the conduct of his other affairs: First, by making thorough and careful inquiry as to the professional standing and personal character of the physician he has in mind. By quiet and critical personal observation of the man himself.
>
> "Much can be judged by appearances nowadays, and a patient has the right to demand that his doctor should have the antiseptic look. His hands should be well cared for, his finger nails trimmed and polished; his hair well groomed and brushed, his clothes pressed; no dandruff on his coat collar or grease spots on his clothes; his linen spotless, his shoes polished and his entire appearance immaculate, though not foppish.
>
> "The doctor who has stopped studying and discussing has stopped thinking. The intelligent general public demands from its doctors higher standards than ever before; and, too, it has the right to make such demands."

This individual wants his physician to cast aside his know-it-all attitude. He feels the patient is entitled to answers to some questions about himself, with which we agree. He declares that the average patient is capable of grasping the explanations offered by the physician, and he feels that this establishes a more confident relationship between patient and physician. He also comments on the fact that physicians now are giving the public factual information regarding health matters, and that it would be well for them to carry out this "school of instruction" when in consultation with the patient.

Editorial Notes

An oil portrait of the late Doctor James A. Parramore, first superintendent of the Lake County Tuberculosis Sanitorium, has been unveiled in that institution. The hospital has been renamed, now being known as the James A. Parramore Hospital.

As a result of the National Defense program, there has been a sharp increase in the cost of food. We recently noted a graphic chart showing this increase throughout the country; it is a variable one, but the Central West, including Indiana, shows an increase of slightly more than sixteen per cent in food-stuff costs.

In recent months the employment situation in Indiana has improved to a marked degree. The step-up in all lines of industry has resulted in thousands being called back to work. Now, however, there is a rift in the lute. Due to the fact that non-defense industries are having difficulty in securing the necessary material for the operation of their plants, many have curtailed production, and quite a few have been forced to close, resulting in the lay-off of numerous employees.

A short time ago we spoke of the increase in the number of feminine disciples of Izaak Walton, calling attention to the enormous increase in the number of resident licenses issues to Indiana women. The National Wildlife Federation cites, in a recent publication, the instance of an Ohio woman, aged 96, who continues to enjoy her fishing, using a cane pole outfit—all the while puffing away at a clay pipe. More power to her; better fishing for her as the years pass; and may her pipe never lose its usefulness in being a comfort to her!

"There are none so blind as those who will not see," so runs the old adage—one that is quite applicable to a small group of physicians who simply will not adopt chemotherapy as a therapeutic agent. Not long ago we heard an exceptionally well-trained physician remark to the effect that the sulfanilamide group is but a passing fancy and that in a few years we will hear little about it. Even a casual perusal of current medical literature would seem to refute the claim made by this man, and we would be willing to wager that in no time he will be an ardent advocate of chemotherapy.

The United States Department of Commerce has given us something else to think about, namely, that our automotive vehicles are responsible for a great deal of radio static. It has been discovered that in communities where they have heavily-traveled arterial highways there is much radio interference. This condition is found chiefly in the short-wave sets, however, but it is of such magnitude that several national organizations have set out to find a remedy. The American Standards Association and at least one large broadcasting company already are at work on the problem. If your short-wave set is not working as it should and if you happen to live in a district alive with automobiles, this may be the answer.

Notwithstanding a rather prolonged drought throughout the state this summer, Indiana promises to hold on to its title of "the champion tomato-growing state," and will maintain the lead as having packed more tomatoes and canned more tomato juice than any other state. "Indiana Tomatoes" continue to be the headline in grocery and market advertisements over the country. The annual Tomato Show, held in the Claypool hotel, Indianapolis, was again a sight worth observing. Tomatoes have come a long way in the last half century; only a few years before that they were grown chiefly as ornamental fruits and commonly were known as "love apples." Few people made so bold as to eat them.

The American Medical Association has mailed a questionnaire to every physician in the United States, requesting information for the 1942 American Medical Directory. This is one of the really important medical books; it contains almost complete information about the entire medical profession, the various medical organizations, informative facts about the hospitals of the nation, and other useful data. In order that the directory may be correct in every detail, it is important that you answer the few questions asked and forward the blank to 535 North Dearborn Street, Chicago, at once. A *proper* listing in the Directory is of much importance to every physician, for this directory is almost universally consulted by those who desire information about physicians. Therefore, it is important that your listing shall show that you are an *active* member of your local county medical society. During a rather long tenure as secretary of a large county medical society we often were "hopped on" by chaps who were not listed in the Directory as members. They had failed to pay their dues on time! On several occasions we learned that men had lost appointments as life insurance examiners because of their listing in the American Medical Directory. Hence, do two things: Answer the *A. M. A.* request, and be sure that you are a *bona fide* member of your society.

With the coming of the fall season it is reasonable to expect a rise in the number of cases of poliomyelitis, for this is the season of its greatest incidence. This reminds us that there is yet much to learn about this disease: what the cause is, how it is transmitted, et cetera. A great deal of laboratory research has been done, much is being done, yet we know too little about it. During the past few months several writers have stressed the importance of using massive doses of convalescent serum in cases where such treatment seems to be indicated. One writer points out that small doses of the serum (40 to 50 cubic centimeters) is not only useless but a waste of good serum. He strongly recommends that the serum be used in doses of 300 to 500 cubic centimeters.

Dr. Hugh A. Cowing, a long-time efficient president of the Muncie Board of Health and for many years the head of the Indiana State Board of Health, recently made a rather unusual request for assistance from the Indiana State Board of Health. It seems that the employes of the street-cleaning and garbage-collection departments in that city went on a strike, and Dr. Cowing became greatly concerned over the situation. The Indiana State Board of Health has, as a matter of fact, almost unlimited power in such emergencies, although we do not recall a time when this authority exercised its power in such a situation. To some extent this incidence reminds us of the policemen's and firemen's strike which occurred in Boston years ago, when Governor Calvin Coolidge took charge of a dangerous situation.

The annual report of the Medical Inspection Department of the Gary public schools presents much informative data. We regret that we do not have the space to give the full report. The staff consists of two full-time physicians, together with nine registered nurses and a secretary. Gary is a city with a population of more than 100,000, and its medical inspection system long has been known as a most efficient organization. We were especially interested in the diphtheria situation in that city. From September, 1940, to July 8, 1941, 57 cases were reported in the city of Gary. Forty-four of these cases were in the public and parochial schools, 6 adults and 7 children being of pre-school age. Twenty-nine of these cases were from a school whose student body is decidedly cosmopolitan in character, more than fifty races and nationalities being represented therein. Forty-two cases had received no diphtheria immunization, whereas 15 had been given one or more doses. One had received a single dose on April 27, 1941; one had two doses in 1935; and one had two doses in May, 1941. Eleven cases had had three doses, the dates varying from 1934 to 1940. One child had been given two series of doses in 1931 and 1932. The Medical Inspection Department points out the dire need for immunization of pre-school children, with which most of our medical men agree. It should also be emphasized that too many people believe that a round of toxoid results in permanent immunization. We consider this record, made in a city the size of Gary and of such a mixed population, a very fine one. It bears out the contention which the medical profession is trying to put before the American people, namely, that *diphtheria is an unnecessary disease.*

The death toll over the Labor Day holiday neared the five-hundred mark, most of the fatalities being caused by automotive accidents. Thus the nation continues to pile up an alarming total of deaths from this cause. Indiana had about twenty-five fatalities during the three-day period. News reports of these accidents show many of them to have been avoidable provided the driver had been more careful. A car runs off the road and the driver is thrown some fifty feet away—dead. Two cars, going in opposite direction, attempt to pass a team of horses—one man dead. Thus we might go on illustrating, but it is futile to try to stop this holocaust until drivers become more careful. They have at their hand an instrument of grave potential danger, yet too many of them take no heed of the common rules of safety.

Adolph Pfingst, writing in the August number of the *Kentucky Medical Journal* on "The Use and Abuse of Sun Glasses," presents a lot of useful, factual information about a much used article. It seems that sun glasses have become quite the thing these days; most everyone we see during the summer months is adorned with them. Whether this is due to the fact that folk are out in the sun more than in former years or whether it is due to a fad we cannot say, but we do believe the use of sun glasses is becoming an abuse. That is to say, there are folk to whom protection from the sun glare is highly essential; we long have noted that blondes are more light sensitive than the darker complexioned group. According to Pfingst, Fiezel of Paris was the first to bring out tinted lenses, followed several years later by Crooks of London. Of late years the Polaroid lenses have come into popular use along with Calobar and others. For sport use, such as fishing, boating and extensive golfing, there can be no question but that properly made sun glasses are of much benefit to the wearer, but we cannot approve them for general uses. Then, too, comes the problem of *cheap* sun glasses, most of which are not ground lenses and have a definite focus, usually a low degree of mixed "nearsight." These glasses are, of course, harmful to the wearer, and many of them are the cause of severe headaches. If your patients are sun glass addicts, see to it that they use one of the better qualities.

REPORT OF MATERNITY NURSING DEMONSTRATION SERVICES IN THE STATE OF INDIANA

HOWARD B. METTEL, M.D.*
INDIANAPOLIS

Maternity nursing services have now been established in seven counties in Indiana; namely, Allen, Perry, Spencer, Pike, Ohio, Switzerland, and Monroe counties, the oldest having been established and in existence for a period of five years. These services, therefore, can no longer be considered in a pioneering stage but function smoothly on accepted policies and procedures which were the outcome of much hard-earned experience. Requests for this service coming from the county medical societies at the present time are beyond the means of supply. However, an effort is being made to meet these needs. In rural areas, often with meager hospital facilities or none at all, the trained, efficient assistance of a well-qualified maternity nurse in the home is highly valued both by the physician and by the community. To quote from one or two of the local physicians, the following is offered:

> "It is my sincere belief that the maternity nursing-service of this community has placed obstetrics on a higher level than it ever has been before. It gives a much better prenatal inventory of the patient than has ever been accomplished heretofore, thereby preventing many of the tragedies of the lying-in period."
>
> "The Perry County Maternity Service has been in existence for the past three years and has had unqualified success from its very beginning. As it became sold to the public it has been increased in favor and efficiency to the public and to the physicians themselves so that now it has really become indispensable to both. It would be a sad day if we had to go back to conditions as they were years ago. I, for one, would be lost without it and my patients feel the same way."

The assistance which the nurse can give to the care of the newborn infant is also valuable. When complications arise the nurse is not uncommonly instrumental in assisting the physician in saving the infant's life. The care of the premature infant through instruction and in making incubators available has also been well received and has proved very beneficial. The nurse working with the physicians gives care and instructions during the entire maternity cycle, begins as early in pregnancy as the expectant mother is called to her attention and continues to give service at the time of delivery and up to six weeks after the baby is born. At the time of the delivery she answers a call at the same time as the physician. She can set up immediately for a delivery in the home, for she carries a complete set of sterile supplies. These supplies have been previously sterilized in a forty-quart pressure cooker—an effective means of sterilizing in a rural area. The average time spent on a delivery is four hours and fifteen minutes.

A study of the cost of maternity nursing service was made in two rural counties. In one county the cost per delivery was $3.36, and in another it averaged $4.17.

Requests for these services are made by the members of the local county medical society to the Bureau of Maternal and Child-Health of the Indiana State Board of Health. Certain pertinent criteria are used for measuring the need for a demonstration. The medical director, supervisory nurse of the district, and the State Board of Health staff following requests from the local medical society, cooperate in making a survey. Such a survey includes a study of the topography of the area, social and economic factors, existing facilities for obstetric care, vital statistics, interest and promise of the cooperation of the local medical group, civic understanding and cooperation, and active participation in the health programs by the local social and welfare agencies.

A report over a period of five years has just been completed of these services in the state of Indiana. This study presents a most comprehensive picture of how these services are organized and operated. It gives the economical status of the people served; how expectant mothers are called to the attention of the nursing service (highest percentage referred by the physicians); month of pregnancy when first visited; method of calling the nurse for the delivery; and services rendered during delivery as well as services given to the mother and baby during the postpartum period. Many other interesting and enlightening facts about maternity services in the Indiana rural counties are included in this detailed report, a copy of which may be obtained upon request by writing the Indiana State Board of Health.

The following interesting table summarizes the total service given during the three periods of the maternity cycle in Allen, Perry, Spencer, Pike, Ohio, and Switzerland counties:

Maternity Period	Allen			Perry			Spencer			Pike	Ohio and Switzerland
Year	1938	1939	1940	1938	1939	1940	1938	1939	1940	1940	1940
Antepartum	262	338	379	206	234	247	169	224	241	134	70
Delivery	290	296	291	215	228	240	175	233	256	117	54
Postpartum	282	160	83	231	233	268	202	240	238	130	81

In addition to the nursing services described in the foregoing paragraphs, several county medical

* Chief of Bureau of Maternal and Child-Health of the Indiana State Board of Health.

societies are now negotiating with the Bureau of Maternal and Child-Health of the Indiana State Board of Health for the establishment of prenatal clinics in rural areas of the state. These plans provide for close cooperation between the local county medical societies, the lay advisory committees, and the Indiana State Board of Health in administering and supervising this type of service. The Advisory Committee of the Indiana State Medical Association to the Bureau of Maternal and Child-Health of the Indiana State Board of Health is also considering the possibility of making available in the rural areas the consultant services of qualified obstetricians.

UNDER THE CAPITOL DOME

NATUROPATHY LICENSES REVOKED

The Indiana State Board of Medical Registration and Examination revoked the license in Naturopathy of Robert B. McAlpin, of Greenwood, at a meeting held on August twenty-eighth. The Board also revoked the Naturopathy license of Carl D. Hill of Indianapolis.

STATE MEDICAL LICENSES ISSUED

The Indiana State Board of Medical Registration and Examination has issued licenses to 117 applicants who successfully passed examinations conducted by the Board last June.

Graduates of the Indiana University School of Medicine who received certificates were as follows:

Victor Franklin Albright
Frederick Kay Allen
Harry Brutus Anderson
Robert John Axtell
Howard Wilson Beaver
Joe David Boughman
Lee Brayton
John Miller Bretz
DeWitt Wilcox Brown
William M. Browing
Lawrence Albert Cantow
George William Cline
Dorothy Ruth Darling
James Malcolm Davis
Charles Frederick Deppe
Rolland Deputy
Jack Dick
Leo Dobrin
Robert W. Donnelly
Joseph Rilus Eastman, Jr.
Joseph Francis Ferrara, Jr.
Mars Benton Ferrell
Ray Firestein
Frederic Buckman Gardner
Albert Goodrich
Jack Richard Hall
Antha Anne Hamilton
Jack William Hannah
Murray Eugene Harden
Lester Lothrop Hardy
Laura Hare
Carroll Weber Hasewinkel
Philip William Hedrick
Lowell Lawrence Henderson
John Edward Heubi
Nolan Albert Hibner
Herman Hoffman
Maurice Chester Hollingsworth
Irwin Stuart Hostetter
Russel Miller Hummel
Francis Dent Hummons
Joe Ellsworth Humphreys
Don Everett Johnson
Charles Alvin Jones
Herbert Loeser Joseph
James Kaler, Jr.
William Meredith Kendrick, Jr.
Burton Edward Kintner
Quentin Kintner
Charles Henry Klamer
Leon E. Kresler
William Wymond Krieble
Carl Casper Kuehn
Marcel James Lewis
John Francis Ling
John Edmund Miklozek
Charles Jackson Miller
Raleigh Samuel Miller
Russell James Morrical
Ralph Hiram Nestmann
Leo Robert Nonte
Ottis Niel Olvey
Jay W. Overmyer
Richard Kenneth Parrish
Roy Voyles Pearce
Lowell Gaskill Redding
Roland Leroy Reppert
Embree Rector Rose
Philip Wayne Rothrock
Louis Franklin Sandock
Joseph Anthony Santangelo
Arthur Walter Schappell
Harry Dick Schell
John Peter Scherschel
Loren Fredrick Schmidt
Gabriel Schuchman
Joe Albert Shugart
Carlyle Bernard Slabaugh
Lawson Fry Smith
Samuel Joseph Smith
Morris Clayton Snyder
Carl Brosius Sputh, Jr.
Lowell Richard Steele
Julius Theodore Steffen
Destiny Edmund Storey
Adron Adolph Sullenger
William Ralph Thompson
George Alvin Vail
Donald E. Vivian
James Burton Warriner
Jason Weiss
Jacob Thomas Whallon
Charles Emerson Williams
William Lee Wissman
Richard Stone Yocum
William Stone Yocum
Woodson Clark Young
H. Haskell Ziperman

The following is a list of the nineteen successful applicants who graduated from medical schools outside of Indiana:

Frederic William Brown
Donald Spivey Bryant
John R. Butter
Alvin Frank Cohn
Bernard E. Edwards
Walter Joseph Filipek
James Price Gilliatt
William Raymond Kirtley
Kenneth Francis Laws
Charles Joseph Marino
Frank Anthony Minas
George Trice Mitchell
Leland James Mortenson
Edmund Henry Schweitzer
Elwyn Edward Stiles
Tsutomu Ton Suzuki
Charles Edward Test
Eugene Giraud Whitaker
Charles Kenneth Wilhelmus

The Indiana State Board of Medical Registration and Examination also issued licenses to three who passed examinations in Osteopathy, as follows: Nadine B. Fisher, Howard E. Eastman, and Robert Fulford.

The State Board licenses were issued as of August twenty-eighth.

Dr. John W. Ferree, secretary of the Indiana State Board of Health, and B. A. Poole, chief sanitary engineer for the Board, will attend a regional conference called by H. L. McCarthy, Region Six coordinator for the Federal Security Agency, in Chicago on September 25th and 26th.

Notices of the conference contained a lengthy list of subjects to be brought up for discussion, among which were the present and future plans for coordination of health, welfare, and related health activities; housing under the defense program; nutrition and national well being; morale in civil and military life; family security under the defense program; organization of civilian defense as a part of the total defense program; price control and consumer protection for the home front; social protection as a phase of national defense; and public health and sanitation under national defense.

The purpose of the conference is to help effect proper cooperation between the civilian and military defense programs. Federal, state and local agencies will be represented. Two similar conferences have been held previously.

Dr. Ferree is scheduled to attend another important conference this month. It is a meeting of health officers of Wisconsin, Minnesota, Iowa, Illinois, Missouri, and Indiana, the states which comprise the Upper Mississippi Sanitation Agreement Group. The purpose of this group is to cooperate in research study of sewage disposal methods as an aid in evaluating the various methods in considering

plans submitted by municipalities for sanitation disposal systems. Dr. Ferree said that the group considers the value of all types of sewage disposal systems. This study is helpful to the Indiana State Board of Health, for one of its duties is to approve sewage disposal plans submitted by Indiana cities and towns.

The conference will be held in Davenport, Iowa, on September 16th and 17th. At the same time the health officers will take part in discussions of the malaria control project, discussing the incidence of this disease in the upper Mississippi valley and its control.

Deaths

J. Frank Cornell, M.D., of Galveston, died at a Kokomo Hospital on August twenty-seventh. He was seventy-one years of age. Doctor Cornell was a graduate of the University of Illinois College of Medicine, Chicago, in 1902.

Roscoe Leland Barlow, M.D., of Gary, died in July at the age of forty-seven. Doctor Barlow graduated from the St. Louis University School of Medicine in 1917. He was a member of the Indiana State Medical Association, of the Lake County Medical Society, and of the American Medical Association.

Rayburn Castle Austin, M.D., of Bloomington, was fatally injured in an automobile accident at Asheville, North Carolina, on August twenty-seventh. He was forty-three years of age. Doctor Austin was a graduate of the School of Medicine of the Division of Biological Sciences, University of Chicago, in 1932. He was a member of the Monroe County Medical Society and Indiana State Medical Association, and he was a Fellow of the American Medical Association.

Harry Morton Garrison, M.D., of Evansville, died September sixth at the age of fifty-six. He was a graduate of the Southwestern Homeopathic Medical College and Hospital, Louisville, in 1910. He was especially interested in proctology. Doctor Garrison was a member of the Vanderburgh County Medical Society, the Indiana State Medical Association, and the American Medical Association.

August F. Knoefel, M.D., of Terre Haute, died at his home on August twenty-seventh, aged sixty-one. He was a graduate of the University of Louisville School of Medicine in 1903. He limited his practice to orthopedic surgery. Doctor Knoefel took an active interest in mine and industrial safety, and he was the author of the *First Aid Textbook* of the United States Bureau of Mines. He was a member of the Vigo County Medical Society, a member of the Indiana State Medical Association, and was a Fellow of the American Medical Association.

News Notes

Dr. T. E. Hall, formerly of Logansport, has opened an office on Pearl Street at Medaryville.

* * *

Dr. Paul C. Vietzke, formerly of Talihina, Oklahoma, has located at Valparaiso.

* * *

Dr. Mark H. Huckeriede and Miss Nanetta Hollowell, of Greencastle, were married on September fourteenth.

* * *

Dr. H. W. Cox, who has been practicing in Indianapolis, has opened an office at Upland.

* * *

Dr. Thomas Hall, of Gary, has opened offices at Medaryville.

* * *

Dr. Eugene Schumaker, formerly of Fontanet, has established an office at Rensselaer.

* * *

Dr. George W. Bean, formerly of Outwood, Kentucky, has been named clinical director of the U. S. Veterans' Hospital at Marion.

* * *

Dr. W. F. Dunham, superintendent of the Fort Wayne State School for the past eight years, has been reappointed by Governor Henry F. Schricker.

* * *

Dr. Robert N. Kabel, of Winchester, was married to Miss Virginiabelle Acker, of New Castle, on September sixth.

* * *

Dr. Donald Manshardt, of Chicago, and Miss Betty Schilling, of Bippus, were married on September sixth at La Porte, Indiana.

* * *

Dr. Neal Baxter, of Bloomington, has been elected president of the Monroe County Medical Society, succeeding the late Dr. R. C. Austin, of Ellettsville.

* * *

Dr. Robert Balinson, formerly of Hammond, is now with the Royal Canadian Air Force Medical Corps somewhere in England.

* * *

Dr. George F. Parker, formerly head of the health service at the University of Iowa, has moved to Greencastle where he will be connected with DePauw University.

* * *

Dr. Mary Alice Norris has announced the opening of an office at 404 Hume-Mansur Building, Indianapolis. Her practice will be limited to ophthalmology.

Drs. Richard and Maurice S. Fox, of Bicknell, have moved into their new clinic building at Main and Fourth Streets.

* * *

Drs. John and Mary Frances Kitchel, of Terre Haute, have opened offices at Grand Haven, Michigan.

* * *

Dr. Paul C. F. Vietzke has moved from Whiting to Valparaiso, Indiana, where he has opened an office at 6 Michigan Avenue.

* * *

Dr. J. V. Pace, of New Albany, has been renamed as superintendent of the Silvercrest Sanitorium.

* * *

Dr. J. Allen Williams, of Muncie, has gone to Cincinnati, Ohio, where he will be associated with Dr. A. Clyde Ross.

* * *

THE FOURTH ANNUAL FORUM ON ALLERGY

The Fourth Annual Forum on Allergy will hold its meeting at Detroit, Michigan, on January tenth and eleventh, 1942.

* * *

Dr. Fred W. Grayston, of Huntington, has been named as County Health Commissioner to succeed Dr. J. M. Hicks, who is leaving for Philadelphia, Pennsylvania.

* * *

Dr. Joseph Humphreys, of Indianapolis, and Miss Genevene Gohring, of Rushville, were married at the First Baptist Church at Indianapolis on August tenth.

* * *

Dr. F. H. Austin, of Bloomington, has been appointed as the new Monroe County Infirmary physician, succeeding his father, Dr. R. C. Austin, of Ellettsville, who was recently killed in an automobile accident at Asheville, North Carolina.

* * *

The Physicians Casualty Association of America has made a reduction in the $25.00 per week accident and health insurance, of $1.00 per year; in the $50.00 per week accident and health insurance, of $2.00 per year; and in the $75.00 per week accident and health insurance, of $3.00 per year.

* * *

Dr. Milton H. Firestone, who formerly practiced medicine in Fort Wayne before becoming connected with the Norwich State Hospital at Norwich, Connecticut, has been appointed to the faculty of the Johns Hopkins University, Baltimore, Maryland, where he will serve as assistant psychiatrist in the Harriet Lane division.

Dr. Lyman T. Rawles, of Fort Wayne, was installed as president of the Northern Tri-State Medical Association at a meeting hold on August seventeenth at Detroit, Michigan. Dr. Donald F. Cameron was inducted as councilor for Indiana.

* * *

Dr. James M. Dinnen, of Fort Wayne, chief surgeon of the Nickel Plate Railroad, entertained members of the railroad's Fort Wayne surgical staff on August twentieth at a luncheon held at the Hitching Post of the Hotel Anthony.

* * *

Dr. MacGuyer Porter, of Elnora, was honored at the Elmore Township Fair, on August twenty-second, tribute being paid to him by the residents of his community for the medical service he has rendered to them.

* * *

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY EXAMINATIONS

The next written examination and review of case histories (Part 1) for Group B. candidates will be held in various cities of the United States on January third, 1942, at 2:00 p. m.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

* * *

Dr. I. N. Hatfield, who retired a year ago after practicing medicine in Bluffton for more than half a century, observed his eighty-fifth birthday anniversary and in so doing he turned over to Judge J. F. Decker of the Wells Circuit Court his Birth Record book which contains records of more than five hundred births. Dr. Hatfield attached to the book an affidavit attesting its authenticity.

* * *

Dr. Marcus Ravdin, of Evansville, celebrated his seventy-fifth birthday anniversary on September seventh. More than one hundred fifty of his friends called to congratulate him. Dr. I. S. Ravdin, who is Harrison Professor of Surgery at the University of Pennsylvania, flew home to be with his father on his birthday anniversary. Mrs. Ravdin also accompanied him. Dr. Ravdin is still practicing each day.

* * *

Dr. Maurice Kamp, who has been stationed in New Albany since July first as a representative of the United States Public Health Service, has been appointed Director of District III of the Indiana State Board of Health, effective September fifteenth. He will fill the vacancy which was created by the resignation of Dr. Charles K. Kincaid, who has accepted a similar appointment at Eau Claire, Wisconsin. District III of the State Board of Health has its headquarters at New Albany and has jurisdiction over health conditions in Clark, Floyd, Harrison, Washington, and Scott Counties.

VAN METER PRIZE AWARD

The American Association for the Study of Goiter again offers the Van Meter Prize Award of three hundred dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held at Atlanta, Georgia, June 1, 2, and 3, 1942. For further information, write to Dr. T. C. Davison, 478 Peachtree Street, Atlanta, Georgia.

* * *

MILITARY SURGEONS' MEETING

A meeting of The Association of Military Surgeons of the United States will be held at the Brown Hotel, Louisville, Kentucky, on October twenty-ninth and November first. All members of the medical profession are invited as guests, and members of the Medical Defense Committees are particularly urged to attend. The session will conclude with a mass review of Military Medicine and an inspection of Fort Knox.

* * *

The United States Director of Civilian Defense has appointed the following Medical Advisory Board to assist the Medical Division of the Office of Civilian Defense:

Dr. George Baehr, New York, Chairman
Dr. Robin C. Buerki, Madison, Wisconsin
Dr. Elliott Cutler, Boston, Massachusetts
Dr. Oliver Kiel, Wichita Falls, Texas
Dr. Albert McCown, Washington, D. C.
Dr. Fred W. Rankin, Lexington, Kentucky.

* * *

The Indiana State Board of Health held its fifth annual two-day Conference at Spring Mill State Park Inn on August nineteenth and twentieth. Dr. John W. Ferree, State Health Commissioner, reported that the defense program had created many new problems in public health. Dr. Thurman B. Rice, Dr. George W. Bowman, and Dr. Howard B. Mettel, of Indianapolis, spoke before the conference. Dr. George M. Brother, of the Indiana State Board of Health, had charge of arrangements.

* * *

The forty-sixth annual meeting of the American Academy of Ophthalmology and Otolaryngology will be held at the Palmer House, Chicago, October 19-23, under the presidency of Dr. Frank R. Spencer, Boulder, Colorado. The Academy's program consists of one general scientific meeting on the morning of the first day, separate programs for the two specialties on alternate afternoons, and instructional courses every morning beginning on Tuesday. The feature of this year's general opening meeting will be a symposium on vertigo, with Dr. Francis H. Adler, Philadelphia, representing ophthalmology; Dr. William J. McNally, Montreal, otolaryngology; and Dr. Bernard Alpers, Philadelphia, neurology.

AMERICAN CONFERENCE ON INDUSTRIAL HEALTH

Under the auspices of the American Association of Industrial Physicians and Surgeons, the American Conference on Industrial Health will hold its second annual meeting on November 5 and 6, 1941, at Chicago Towers, Chicago.

This organization maintains a public forum for all who are interested in the prevention of disease, injury and disability in industry, and the active supervision and promotion of health in industrial groups. The opening session will be a symposium on the technical problems of industrial health, the afternoon session will be a symposium on the economics of industrial health, and the morning of the second day will be given to a symposium on the social implications of industrial health.

* * *

A change in the spelling of the name "Petrolagar" to "Petrogalar" has been announced by the Petrolagar Laboratories. The change is being made in both the product name and corporate name.

The new spelling does not affect the formula or quality of the product in any way, company officials say.

"Because it has never been the intention of the company to imply that agar-agar was used for any other purpose than as an emulsifying agent, the last syllable of the former name has been altered in favor of the new spelling," officials said.

The new corporate name is: Petrogalar Laboratories, Inc., and the address remains, 8134 McCormick Boulevard, Chicago, Illinois.

* * *

BARBITURATE REGULATIONS

"Much confusion apparently exists throughout Indiana concerning the sale of barbiturates," says H. V. Darnell, secretary of the Indiana Pharmaceutical Association. "The U. S. Food and Drug Administration has said that in their opinion barbiturates should not be sold by pharmacists 'over-the-counter.' This opinion is based upon a rather ambiguous section of the new Federal law and there are those who question the legality or need of the opinion.

"However, our Association and the two National Pharmaceutical Associations have advised all members *not* to dispense barbiturates except on prescription. This will continue to be our policy. If, therefore, we can have the cooperation of the doctors and dentists in *not* sending their patients to the drugstore for barbiturates without an original prescription, much misunderstanding between the prescriber, patient, and pharmacist will be avoided. (In the case of refills the Administration has advised that a new prescription is not necessary. The pharmacists must, however, obtain the physician's permission to refill the prescription, by telephone, and make an entry of said refill upon the back of the original prescription.)"

INDIANA UNIVERSITY NEWS NOTES

Two 1941 graduates of the Indiana University School of Medicine tied for first place and one ranked second in examinations conducted in June by the Indiana State Board of Medical Registration and Examination. Dr. Laura Hare, an interne at the Indiana University medical center, and Dr. James B. Warriner, an interne at the Indianapolis City Hospital, tied for top honors. Both are natives of Indianapolis. Dr. James M. Davis of Anderson, also an interne at the Indianapolis City Hospital, placed second. Third place went to Dr. George T. Mitchell, graduate of the University of Illinois College of Medicine.

The Board announced that the examinations were passed by 117 applicants, which included the entire 97 members of the 1941 class of the Indiana University School of Medicine.

Registration showed an increase in enrollment both in the Indiana University School of Medicine and the Indiana University School of Dentistry at Indianapolis as the 1941-42 term got under way. The enrollment in the medical school is expected to be the largest in several years.

The freshman class, selected last spring by a committee of twelve faculty members who are using a new and more intensive system, totaled one hundred forty, an increase of ten to help meet the demands being made on the medical profession by the defense program. Both the medical and dental students complete their first year studies on the Bloomington campus. The dental school freshmen totaled fifty—the capacity.

Dr. William H. Crawford, dean of the Indiana University School of Dentistry, pointed out that only 1,550 students graduated from dental schools last year, whereas more than 2,000 dentists left the profession through death, retirement and other causes. He said that dental schools face a responsibility in meeting the shortage.

An increase of 33.2 per cent in new patients treated and significant results obtained in a number of cases during the year ending June thirtieth has been reported by the tumor clinic of the Indiana University Medical Center. A total of 369 new patients was received from June 30, 1940, to July 1, 1941, an increase of 92 over the previous year. Clinic visits for the same period totaled 1,445, an increase of 22.46 per cent over the preceding year. From the various counties of the state, the clinic received and treated a total of 591 patients, an increase of 446 over the preceding year. X-ray treatments administered totaled 5,934, an increase of 19 per cent; radium therapy treatments totaled 163, an increase of 31 per cent; and surgical cases totaled 125, an increase of 13 cases.

The clinic, which was established three years ago, serves two major purposes: that of affording citizens of the state modern and approved facilities for the diagnosis and treatment of neoplastic diseases, and that of educating medical students.

Dr. Forrey, the clinic director, reported that inasmuch as the clinic has been in existence only three years the director can not as yet report on the effects of treatments over the accepted five-year period, but a number of patients have been shown to be free of symptoms two to three years after treatment. About one-half of the patients are incurable, but palliative treatment has been highly effective in arresting the disease in numerous cases.

The Research Committee approved plans for widening the scope of the clinic's activities by providing follow-up observation and care of patients, not only to facilitate cures but also to increase medical knowledge of cancers and other malignant growths. Means will be sought to secure equipment necessary in the more extended use of radium.

Dr. Paul M. Harmon, who has been connected with Indiana University for the past twenty-six years, has been named chairman of the Indiana University physiology department to succeed Dr. W. J. Moenkhaus who retired at the end of the past school year. Dr. Harmon received his A.B. degree in 1914 from Indiana University, his A.M. degree in 1915, and his Ph.D. degree in 1920. During 1926-27 he taught physiology at the Harvard Medical School.

Dr. K. C. Wakim, who has been teaching at the Mayo Clinic during the past year, has been appointed associate professor of physiology at Indiana University. Dr. Wakim is a native of Syria and received his A.B. and M.D. degrees from the American University of Beirut, Syria. From 1933 to 1938 he taught at this school, and from 1938 to 1940 he held a Mayo Fellowship in physiology. From January, 1940, until July, 1940, he was acting professor of physiology at the University of Iowa.

Two new appointments to the faculty of the Indiana University School of Dentistry also have been announced. Dr. William F. Koss and Dr. Doyle E. Pierce, both of whom were graduated from the Indiana University School of Dentistry in 1940, will be instructors in oral diagnosis and operative dentistry, respectively. During the past year Dr. Koss held a Carnegie Fellowship at the University of Rochester, and Dr. Pierce was at the Eastman Dental Dispensary, Rochester, New York, where he studied preventive children's dentistry. During July of this year Dr. Koss studied in the oral diagnosis department of the University of California.

INDIANA PHYSICIANS ORDERED TO ACTIVE DUTY BY WAR DEPARTMENT

(Editor's Note: The following additional Medical Reserve Corps officers have been ordered to active duty since the original list was published in July, 1941.)

ARMY MEDICAL RESERVE

First Lt. Ray N. Adler, Camp Grant, Illinois.
First Lt. Theodore D. Arlook, Camp Grant, Illinois.
First Lt. Eugene W. Austin, Montgomery, Alabama.
First Lt. Bruce F. Avery, Camp Grant, Illinois.
First Lt. Frederic W. Brown, Kelly Field, Texas.
First Lt. Ray H. Burnikel, Lowry Field, Colorado.
First Lt. Herbert O. Chattin, Brookley Field, Mobile, Alabama.
First Lt. Paul A. Clouse, Kelly Field, Texas.
First Lt. Samuel J. Davis, Bowman Field, Kentucky.
First Lt. Joseph W. Freeman, Montgomery, Alabama.
First Lt. Edgar A. Garland, Charlotte, North Carolina.
First Lt. William S. Garner, Fort Hayes, Ohio.
First Lt. Jerome A. Graf, Camp Grant, Illinois.
First Lt. Thomas G. Graham, Camp Shelby, Mississippi.
First Lt. Bernard R. Hall, Camp Grant, Illinois.
First Lt. Bennett B. Harvey, Camp Shelby, Mississippi.
First Lt. Archibald L. Hickman, Jr., Camp Grant, Illinois.
Capt. Nathaniel C. Isler, Fort Benjamin Harrison, Indiana.
First Lt. Julien C. Kennedy, Bowman Field, Kentucky.
First Lt. William R. Kirtley, Camp Grant, Illinois.
Capt. Chet K. Lamber, Fort Benjamin Harrison, Indiana.
First Lt. Kenneth F. Laws, Fort Knox, Kentucky.
First Lt. Ralph U. Leser, Fort Benjamin Harrison, Indiana.
First Lt. Virgil C. McMahan, Ellington Field, Texas.
First Lt. Roland E. Miller, Fort Leonard Wood, Missouri.
First Lt. William H. Morrison, Fort Knox, Kentucky.
First Lt. William M. Mount, Camp Shelby, Mississippi.
First Lt. Paul F. Mueller, Drew Field, Florida.
First Lt. Joseph E. Mullin, Lowry Field, Colorado.
First Lt. Andrew Offutt, Ellington Field, Texas.
First Lt. Alexander J. Pasterak, Fort Knox, Kentucky.
Capt. Henry R. Reeder, Fort Knox, Kentucky.
First Lt. Otto F. Rogers, Fort Oglethorpe, Georgia.
First Lt. Harry G. Rotman, Fort Knox, Kentucky.
First Lt. Robert A. Saide, Camp Grant, Illinois.
First Lt. Burton E. Scherb, Ellington Field, Texas.
First Lt. Herbert A. Schiller, Fort Knox, Kentucky.
First Lt. Harold F. Schuknecht, Fort Knox, Kentucky.
First Lt. Tom S. Shields, Fort Oglethorpe, Georgia.
First Lt. Ben Jack Siebenthal, Phoenix, Arizona.
First Lt. Frederick H. Simmons, New Orleans, Louisiana.
First Lt. John T. Slama, Fort Knox, Kentucky.
Capt. Michael T. Tedesco, Fort Jackson, South Carolina.
First Lt. Ames R. Templeton, Fort Hayes, Ohio.
First Lt. John H. Uhrich, Charlotte, North Carolina.
First Lt. William W. Webb, Bowman Field, Kentucky.
First Lt. Joseph G. Weber, Fort Hayes, Ohio.
First Lt. Dale E. York, Camp Grant, Illinois.

U. S. PUBLIC HEALTH SERVICE NOMENCLATURE FOR SYPHILIS

New Terms and Explanation of Their Use

Primary—To include those cases presenting the primary lesion of syphilis (the chancre), which have not yet developed secondary manifestation. This diagnosis must be confirmed by darkfield examination, serologic test of the blood, or both. If blood serologic test is negative, the diagnosis of primary syphilis is not permissible without the demonstration of T. pallidum by darkfield.

Secondary—To include only those cases of early syphilis which show one or more of the manifestations of systemic dissemination of the spirochete; for example, generalized enlargement of lymph glands, cutaneous eruption, mucous patches, condylomata lata, patchy alopecia, laryngitis, bone pains, febrile reaction, etc. The chancre may or may not be present and if present may be in any stage of evolution. In early secondary cases the manifestations of systemic spirochaetal dissemination are increasing, have attained their maximum, or are waning. This diagnosis must be confirmed by darkfield examination, serologic test or both.

In early secondary syphilis and in addition to the manifestations listed above, ocular or neurologic complications (iritis, neuroretinitis, acute syphilitic meningitis) should be specially recorded as: "Syphilis, secondary, manifested by ———."

Latent—Secondary symptoms have subsided and the active manifestations of late syphilis have not yet supervened. There are no evidences of syphilis other than a positive serologic test of the blood. Cases will be classified as: "Latent (early or late)—spinal fluid negative" or "Latent (early or late)—spinal fluid not performed (diagnosis tentative)." The date of the negative examination of the spinal fluid will be stated in all cases.

Tertiary—This classification is to be limited to cases that show active lesions of late syphilis. The lesion may be a gumma or it may be a diffuse process and may involve any organ or tissue of the body. The majority of all patients with tertiary syphilis will fall within six categories:

- Mucocutaneous—Late syphilitic gummatous lesions of skin or mucous membrane.
- Osseous—Periostitis, osteomyelitis, arthritis, synovitis.
- Ocular—Iritis, uveitis, keratoiritis, keratitis, choroiditis, but not including optic atrophy.
- Visceral—Hepatic, gastric, etc., but not including cardiovascular.
- Cardiovascular—To include all lesions of the heart and great vessels. Classify as follows:
  - Aneurysm (saccular)—Do not use for a fusiform dilatation of the aorta. Specify artery involved.
  - Aortic regurgitation (aortic insufficiency)—Specify whether with or without cardiac decompensation.
  - Aortitis, uncomplicated—To be used only for those patients with symptoms and physical or x-ray signs of syphilitic aortic involvement in the absence of ancurysmal sacculation or aortic regurgitation.
- Neurosyphilis—To include all cases with involvement of the central nervous system, classified as follows:
  - Asymptomatic—To be used only for those patients with early or late syphilis who have no symptoms or detectable physical signs of central nervous system involvement, and in whom the diagnosis is based on the routine finding of abnormalities in the spinal fluid.
  - Acute syphilitic meningitis—Usually occurs within the first two years of the disease, most commonly as a relapse phenomenon (neurorecurrence), manifested by the usual signs of low

grade meningeal involvement, with or without cranial nerve palsies.

Diffuse meningovascular—This is a catch basket category to include all patients with neurosyphilis who do not fit into other diagnostic categories enumerated. Manifestations to be stated in each instance.

Optic atrophy—Primary or secondary.

Tabes dorsalis—Manifestations to be stated.

Taboparesis—To be used only in patients with definite psychiatric signs of paresis complicated by definite clinically demonstrable evidence of damage to the posterior columns of the spinal cord.

Psychosis with syphilitic meningo-encephalitis (general paresis)—To be limited to cases which show psychic changes in addition to neurological signs and the characteristic changes in the spinal fluid. Cases with paretic type spinal fluid but without psychic changes will be reported as: "Syphilis, diffuse meningovascular, manifested by ———," or as some other type of neurosyphilis.

Psychosis with neurosyphilis—To include neurosyphilis with psychosis other than cases of paresis and taboparesis.

If tertiary manifestations occur which do not fit into one of these categories, diagnose as:

"Syphilis, tertiary, otherwise unclassified"—Specify.

Type undetermined—To include cases in which accurate diagnosis has not been made. Every effort should be made to make a complete examination and proper diagnostic classification in all cases.

Congenital—To be limited to cases that show definite evidence of the existence or former existence of the characteristic changes of congenital syphilis, such as interstitial keratitis, Hutchinson's teeth, sabre shins, and other bone changes, saddle nose, eighth nerve deafness, etc. The congenital origin of syphilis is not to be assumed merely because the time and the circumstances of the infection cannot be ascertained and there is no scar of a primary lesion.

The suggested terms for various drug poisonings are intelligible as they stand.

Spinal puncture for diagnosis or progress—This should be used in all cases (syphilitic or otherwise) routinely hospitalized for purpose of a spinal puncture.

Special therapeutic practices—This section has been included for it seemed desirable to indicate special therapeutic practices which necessitate hospitalization.

U. S. PUBLIC HEALTH SERVICE NOMENCLATURE FOR SYPHILIS

To be used in reporting all stages of syphilis on and after July 1, 1941

This list rescinds all diagnostic terms pertaining to syphilis now included in the U. S. Public Health Service Nomenclature of Diseases and Conditions, Revised 1935.

		Class No.
2100	Syphilis, primary	25
2101	Syphilis, secondary	25
	Syphilis, early latent (less than 4 years since infection)	
2102	Spinal fluid negative	25
2103	Spinal fluid not performed (diagnosis tentative)	25
	Syphilis, late latent (4 or more years since infection)	
2104	Spinal fluid negative	25
2105	Spinal fluid not performed (diagnosis tentative)	25
2106	Syphilis, tertiary—Otherwise unclassified	25
2107	Mucocutaneous	22
2108	Osseous	03
2109	Ocular (except optic atrophy)	10
2110	Visceral (except cardiovascular)	07
2111	Cardiovascular—Other	04
2112	Aneurysm (saccular)	04
2113	Aortic regurgitation (insufficiency)	04
2114	Aortitis (uncomplicated)	04
2115	Neurosyphilis—Otherwise unclassified	16
2116	Asymptomatic	16
2117	Acute syphilitic meningitis	16
2118	Diffuse meningovascular	16
2119	Optic atrophy	16
2120	Tabes dorsalis	16
2121	Taboparesis	20
2122	Psychosis with syphilitic meningo-encephalitis (general paresis)	20
2123	Psychosis with neurosyphilis other than paresis or taboparesis	20
2124	Syphilis, type undetermined—To include cases in which accurate diagnosis has not been made	25
2125	Syphilis, congenital—Include all manifestations	25
3047	Arsenical poisoning	19
3058	Bismuth poisoning	19
3233	Iodine poisoning	19
3266	Mercury poisoning	19
2200	Spinal puncture for diagnosis or progress	49
	Special therapeutic practices	
2300	Fever therapy—Malaria	26
2301	Artificial	26
2302	Intravenous drip	26

Society Reports

Lake County Medical Society members held their annual picnic at the Lake Hills Country Club on August fourteenth. A program of entertainment and a golf tournament were the features of the day.

* * *

Pike County Medical Society members held a dinner meeting on July seventeenth in the Methodist Church at Petersburg. Dr. Carl P. Huber, of Indianapolis, and Dr. J. D. Winebrenner, of Princeton, were the speakers of the evening.

* * *

Whitley County Medical Society members held their annual picnic on July ninth at the cottage of Dr. and Mrs. E. V. Nolt, of Crooked Lake.

* * *

Cass County Medical Society members met at the St. Joseph Hospital, Logansport, in conjunction with the hospital staff on August fourteenth.

* * *

Green County Medical Society members met at the Freeman County Hospital, Linton, on September eleventh. Dr. Charles L. Mahoney, of Terre Haute, spoke on "Treatment of Commoner Diseases and Injuries of the Eye." Ten members attended this meeting.

* * *

Fort Wayne (Allen County) Medical Society members held a dinner meeting at the Allen County Infirmary on September second, with an attendance of more than fifty members. A clinical program was presented by Dr. E. A. King, infirmary physician.

Woman's Auxiliary

Now, at the close of the Auxiliary's fiscal year, we present the annual reports from county auxiliaries throughout the state of Indiana. For most of the component groups it has been an extremely interesting and profitable year, and we wish them success in the year just beginning.

Press and Publicity Committee:
Mrs. Harold C. Ochsner,
Mrs. Paul Beard,
Co-chairmen
Mrs. William N. Wishard, Jr.,
Mrs. Emmett B. Lamb.

ANNUAL REPORTS FROM COUNTY AUXILIARIES

ALLEN COUNTY

The Woman's Auxiliary to the Allen County Medical Society began its 1940-41 season with the annual membership tea in June, 1940. The first meeting in the fall was in the form of a picnic held at the Irene Byron Sanitarium. The program which followed consisted of short talks by members and a physician on "M-Day." Pending important medical legislation also was presented and discussed by two members. Medical legislation and the cost of medical care were again discussed at a luncheon meeting and an evening meeting. The Methodist Hospital and the Lutheran Hospital each entertained the group during the year. In April the Auxiliary assisted in the Cancer Control program. In the fall a year book was printed and sent to each member, containing the program for the year, names of officers, list of committees, membership list, and the constitution.

CARROLL COUNTY

An enthusiastic group of only eleven makes up the membership of the Woman's Auxiliary to the Carroll County Medical Society. Inasmuch as there is no large city in this county, physicians are more widely scattered than in a more densely populated metropolitan area, and there is no opportunity for a closely-knit working unit among doctors' wives. So when these eleven women make the effort to attend meetings in the various towns throughout the county and listen in on the scientific programs which their physician husbands arrange, that is a definite manifestation of the kind of interest needed among doctors' wives. They feel that they are well repaid for the time spent, for they learn a great deal about their husbands' problems.

CASS COUNTY

All of the meetings of the Woman's Auxiliary to the Cass County Medical Society, except one have been dinner meetings. In the month of April, the Auxiliary cooperated with the Women's Field Army in the program for the Control of Cancer. Some of the wives gave informative talks on the control of cancer. The Public Relations Chairman and her committee placed posters in public places and also placed receptacles in various places for the convenience of contributors. This Committee, together with the Program Chairman, arranged for a meeting open to the public. Dr. Chester Stayton from Indianapolis was the guest speaker. Five thousand leaflets on "cancer" were distributed in the county, and forty-six dollars was received. The Auxiliary has helped the Red Cross in making surgical dressings.

The Cass County Medical Society entertained their wives at a dinner meeting in June. In October the Auxiliary will be in charge of the entertainment for the doctors' wives at the meeting of the Eleventh Councilor District.

DELAWARE-BLACKFORD

The activities of the Auxiliary to the Delaware-Blackford County Medical Society included four dinner meetings, four luncheons, and one tea. Making supplies and sewing for the hospital followed each luncheon meeting. In April an interesting discussion, led by a guest speaker, was held on the subject of "Cancer." A book review given at the Christmas Tea and a speaker on "World Events" at the January dinner meeting were included in the year's program. Money was donated for a dictionary to be placed in the doctors' library at the Ball Memorial Hospital.

ELKHART COUNTY

The Woman's Auxiliary to the Elkhart County Medical Society has been organized little more than a year, but during that time its members have shown great interest in their organization, and it has flourished. Dinner meetings once a month are the custom, and the programs which follow are planned so to be both interesting and informative. Dr. and Mrs. Howard A. Bosler were responsible for two evenings of excellent entertainment, relating their experiences in Nigeria, West Africa. Another member, Mrs. Robert L. Bender, talked on "Life in India." Local milk supply problems in relation to public health were studied during the year, and the group agreed to work with the Parent-Teachers Association and the Community Health Council in their Tuberculosis Education Project. Certainly a full and useful first year!

FLOYD COUNTY

The Floyd County Auxiliary meets four times a year, in addition to a joint meeting with the physicians in December. A few members of the Executive Board of the Auxiliary to the Indiana State Medical Association were guest speakers in March.

Medical and dental instruments that could be spared were gathered and delivered to the headquarters for "Bundles for Britain." Health literature was placed in the colored high school. A Public Relations meeting was held in the afternoon and evening at the library. The Auxiliary will have charge of the Cancer Control program in New Albany for the coming year as one of their projects. Instead of working at the hospital, the members decided to do War Relief and Red Cross work. *Hygeia* was placed in all Floyd County schools. The Floyd County dentists' wives were guests at one meeting.

HOWARD COUNTY

The Womans Auxiliary to the Howard County Medical Society met each month, beginning with the month of October. At many of the meetings guest speakers from all parts of the state were present. A Public Relations Tea was held at the Elks Club in November, the subject being "Cancer Control," and one hundred guests were present. In December a Christmas party was given in conjunction with the Medical Society. The accomplishments for the year were great, ending with one hundred percent membership.

LAKE COUNTY

The Auxiliary to the Lake County Medical Society is very young, and therefore its accomplishments are not legion. Perhaps the greatest mark of progress is the establishment of geographic groups. There are three of these groups within the county organization, each with its own officers. Their meetings are held monthly, alternating with the county meetings. Because of the size of Lake County, this plan will help in accomplishing the first of our purposes for having an auxiliary—to promote friendship among doctors' wives. During the past year these groups have each become a strong unit working subsidiary to the county program. The groups have served the Red Cross as well as cared for local needs.

The primary motive of the county group is self-education; to this end, speakers from the American Medical Association have been secured for three different meetings.

Two social events mark the annual calendar: at Christmas time the Auxiliary joins the physicians in a dinner-dance, and in June a luncheon is held at a country club, where part of the day is spent in golfing and bridge playing.

LaPORTE COUNTY

The newest auxiliary group was organized during the past year in LaPorte County. The Woman's Auxiliary to the LaPorte County Medical Society has held a meeting once each month and have taken many steps in an approved direction, stressing the study of medical legislation in their programs.

(Continued on page xxii)

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"My policy with you was a great comfort to me — far greater than I could realize before the suit was entered. I have been repaid a hundred fold for the money expended."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

PH OMAHA INSURANCE PC OMAHA

For ethical practitioners exclusively
(56,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $32.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $64.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $96.00 per year

39 years under the same management

$2,000,000.00 INVESTED ASSETS
$10,000,000.00 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

(Continued from page xxi)

MADISON COUNTY

The Woman's Auxiliary to the Madison County Medical Society holds monthly dinner-meetings and has an active, interested group of members. Their main project is aid to St. John's Hospital in Anderson, and they were extremely successful this year in raising funds to purchase supplies and equipment for this institution. They have also supported "Bundles for Britain" work and anti-tuberculosis projects.

MARION COUNTY

The Woman's Auxiliary to the Marion County Medical Society is pleased with the year just completed, for by the end of the year there were 221 paid-up members, 30 of whom were new. An innovation this year was the musical tea for new and prospective members given early in September by the Executive Board and the Membership Committee. The friendly feeling created then was carried throughout the year. Soon after this a luncheon-bridge for all members helped to begin new and renew old friendships among members. Later in the year the group entertained their husbands at a hilariously enjoyable party.

The special privilege of the Marion County Auxiliary this year was the opportunity of entertaining Mrs. V. E. Holcombe of Charleston, West Virginia, the national president of the Woman's Auxiliary to the American Medical Association. A luncheon to which all auxiliary members in the state were invited was arranged by Mrs. Gifford, president of the Marion County group. At this time Mrs. Holcombe spoke, charming everyone present as she always does.

Two of the four regular meetings had programs which were purely entertaining, whereas two were very informative. The meeting arranged by the Legislative Committee informed members of pending medical legislation and suggested the part auxiliary members could play in defense work. Dr. A. M. Mitchell, president of the Indiana State Medical Association, further enlightened the group on the latter subject when he spoke on "Medical Problems with Relation to Defense" at the meeting sponsored by the Public Relations Committee.

This auxiliary has no special projects, but does its bit to support various worth-while organizations. It also places *Hygeia* in meeting places and schools where its effect may be far-reaching.

MARSHALL COUNTY

Another young group has just closed a very successful first year. The Woman's Auxiliary to the Marshall County Medical Society held nine monthly meetings last year. Besides providing interesting programs at their meetings, one being a joint meeting with the physicians at which a professor spoke on socialized medicine, they have prepared a "cancer control" exhibit for their county fair and have placed *Hygeia* in all of their county schools.

NORTHEASTERN ACADEMY OF MEDICINE

The Woman's Auxiliary to the Northeastern Academy of Medicine spent most of their time in organizing. The counties of Noble, Steuben, DeKalb, and Lagrange are organized as one unit. The first meeting was held in February, 1940, with thirty-five members present. Five meetings are held during the year, two devoted to study and three for social purposes. In January, 1941, three speakers talked on the following subjects: "Indiana Food, Drug, and Cosmetic Act"; "Cults"; and "Changes to Be Made in the State Board of Health."

ORANGE COUNTY

The Woman's Auxiliary to the Orange County Medical Society did a year's work in a few days when they were hostesses to the State Convention last October in French Lick. The results were excellent. Their special project for the year has been the placing of *Hygeia* in the county. Individual members are active in knitting and sewing for the Red Cross, and in securing "Bundles for Britain."

PORTER COUNTY

At the regular monthly meetings of the Woman's Auxiliary to the Porter County Medical Society, the social portion usually takes the form of a "pot luck dinner." Following dinner, members discuss items of interest to physicians' wives, such as the Wagner Act and medical work in the Army and Navy.

ST. JOSEPH COUNTY

The Woman's Auxiliary to the St. Joseph County Medical Society is a large organization with a membership of seventy-five and an actively useful one. Five regular meetings were held during the year, which was completed with the annual family night dinner-dance at the Country Club.

The chief interest among the members this year has been in assisting the hospitals and in working for the Red Cross. However, other worth-while things have been accomplished. Plans were made whereby a certain sum of money will be laid aside in the treasury each year to be loaned to young women who desire to take up nursing as their profession but who do not have the means to do so. A Public Relations Day was arranged in March, as a result of plans made by the Auxiliary, when Dr. W. W. Bauer, Associate Editor of *Hygeia*, spoke on health problems, not only to auxiliary members and guests, but also to fifteen hundred high school students. *Hygeia* subscriptions have been donated to local, county and parochial schools, and the sale of *Hygeia* has been promoted to such a degree that the record which gave St. Joseph County honorable mention at the state meeting last fall for the largest number of *Hygeia* sales, will be equalled again. St. Joseph County Auxiliary members are earnest in their attempt to prove themselves of value to the medical profession and to their community as a whole.

TIPPECANOE COUNTY

To be useful to their husbands is the primary object of the members of the Woman's Auxiliary to the Tippecanoe County Medical Society. Organized only a year, they have made rapid strides in that direction. Programs at the regular monthly meetings are planned to be primarily educational. At each meeting the members participate in a "news flash" period, when current items of interest directly or indirectly in the medical world are reported. Members vie for interesting articles, and so keep informed on medical news. Members are urged to become active in other organizations in order to keep informed about any study of medical problems carried on by other groups, and to see that opinions on such subjects are intelligently directed and that the members themselves are informed on the subject.

VANDERBURGH COUNTY

The Woman's Auxiliary to the Vanderburgh Medical Society adopted as a special project during this last year, the formation of a student-loan fund for pre-medical students at Evansville College. A benefit card party was held to raise money for this project. If all goes well, this will become a permanent fund.

VIGO COUNTY

Occupational therapy work in the two hospitals in Terre Haute is the main project of the Woman's Auxiliary to the Vigo County Medical Society. To finance the payment of an instructor in this work, and to buy materials necessary for it, an annual bridge party is given by the group. The one held this year was very successful. Both hospitals cooperated this year by supplying a special room for the use of the instructor, and this was found to aid materially. In addition to this worthy project, many individual members spend a large amount of time in Red Cross and War Relief work. There are also many who have been interested in the League of Women Voters' work, particularly in its study of socialized medicine.

This group has seventy-three members, the majority of whom voted to increase the number of meetings from five to seven each year. Five meetings were held this last year, with interesting speakers on medical legislation, cancer control, and other pertinent subjects.

WABASH COUNTY

The Woman's Auxiliary to the Wabash County Medical Society confesses that its purpose is mainly social, but they have found time along with their social functions to make dresses for their hospital nursery.

INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASE
Monthly Report, July, 1941

Diseases	*July 1941*	*June 1941*	*May 1941*	*July 1940*	*July 1939*
Tuberculosis, Primary	27	0	1	0	0
Tuberculosis, Active	161	138	218	147	172
Tuberculosis, Arrested	7	0	0	0	0
Chickenpox	12	89	247	26	43
Measles	180	1,197	5,116	29	29
Scarlet Fever	59	131	435	61	103
Typhoid Fever	13	13	5	14	31
Whooping Cough	80	98	197	75	568
Diphtheria	9	25	38	19	30
Influenza	28	17	55	8	38
Pneumonia	16	37	90	29	25
Mumps	9	56	158	33	40
Poliomyelitis	11	0	1	19	1
Meningitis	2	1	4	4	5
Malaria	3	0	2	0	9
Rubella	4	73	330	0	0

BOOKS
BOOKS RECEIVED

SULFANILAMIDE AND RELATED COMPOUNDS IN GENERAL PRACTICE. By Wesley W. Spink, M.D., Associate Professor of Medicine, University of Minnesota Medical School. 256 pages with some illustrations. Cloth. Price $3.00. The Year Book Publishers, Inc., Chicago, Illinois, 1941.

* * * *

CARDIAC CLINICS—A Mayo Clinic Monograph. By Fredrick A. Willius, B.S., M.D., M.S. in Medicine, Head of Section of Cardiology, Mayo Clinic, and Professor of Medicine, Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota, Rochester, Minnesota. 276 pages with thirty-five illustrations. Cloth. Price $4.00. The C. V. Mosby Company, St. Louis, 1941.

* * * *

SYNOPSIS OF APPLIED PATHOLOGICAL CHEMISTRY. By Jerome E. Andes, M.S., Ph.D., M.D., F.A.C.P., Director of Department of Health and Medical Advisor, University of Arizona, Tucson; and A. G. Eaton, B.S., M.A., Ph.D., Assistant Professor of Physiology, Louisiana State University School of Medicine, New Orleans. 428 pages with 23 illustrations. Fabrikoid. Price $4.00. The C. V. Mosby Company, St. Louis, 1941.

BOOKS REVIEWED

THE 1940 YEAR BOOK OF INDUSTRIAL AND ORTHOPEDIC SURGERY. By Charles F. Painter, M.D., Orthopedic Surgeon to the Massachusetts Women's Hospital and Beth Israel Hospital, Boston. 484 pages with 299 illustrations

(Continued on page xxiv)

PRESCRIBE OR DISPENSE ZEMMER
Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled.
Write for general price list.
Chemists to the Medical Profession. IN 10-41
Zemmer
THE ZEMMER COMPANY
OAKLAND STATION
PITTSBURGH, PA.

LABORATORY APPARATUS

Coors Porcelain Pyrex Glassware
R. & B. Calibrated Ware
Chemical Thermometers
Hydrometers Sphygmomanometers

J. T. Baker & Co.'s C.P. Chemicals
Stains and Reagents
Standard Solutions

• BIOLOGICALS •

Serums Bacterins Media
Antitoxins Vaccines Pollens

We are completely equipped, and solicit your inquiry for these lines as well as for Pharmaceuticals, Chemicals and Supplies, Surgical Instruments and Dressings.

The RUPP & BOWMAN CO.
319 SUPERIOR ST., TOLEDO, OHIO

THERE IS A DIFFERENCE IN Rx SERVICE

You can depend on Blue Ribbon Rx Service

THE WHITE-HAINES OPTICAL CO.
INDIANAPOLIS and SOUTH BEND

(Continued from page xxiii)

including two in colored plates. Fabrikoid. Price $3.00. The Year Book Publishers, Chicago, 1940.

This book represents a condensed review of the year's work in this field. Special emphasis has been placed upon the treatment and diagnosis of traumatic injuries frequently seen in industry or traffic accidents.

For a review of a field of such wide scope, it is excellently organized, which makes it a desirable reference book. E. B. L.

* * * *

THE DOCTOR AND THE DIFFICULT CHILD. By William Moodie, M.D., Medical Director, London Child Guidance Clinic and Training Centre. 214 pages. Cloth. Price $1.50. The Commonwealth Fund, New York, 1940.

For any man who does a great deal of general practice, especially along pediatric lines, and feels that he is a family physician, the small sum invested in this book will bring great returns. It will apply to all who are interested in the care of children. After prescribing diets containing plenty of proper vitamins, giving inoculations, treating the routine contagious illnesses, or removing tonsils and adenoids, there still remains a part of the child which does not receive the consideration it deserves. That part refers to the numerous and varied obstacles and difficulties which beset the child in his learning to make adaptations as he is growing up. As often as not, the child will show symptoms of misbehavior or malbehavior which too readily mislabel him as being a bad boy, "ornery," or other similar short-sighted inferences. The bad boy, the thieving child, the frightened child, the one who is afraid of the dark, the stupid child and many others should be regarded as personality problems which are equally as important in the practice of medicine as anything else.

In this little, well-written and beautifully illustrated book the practitioner will find valuable information regarding the treatment of the child who gets into trouble psychologically. If the physician is too busy or cares little about treating such a child, he at least will know enough to refer the patient to a place where he may receive proper attention. The book contains a minimum of the customary psychiatric verbiage and jargon; it has the novelty, for a book dealing with psychology, of being written in pure English. H. B.

* * * *

MANUAL OF PHYSICAL DIAGNOSIS with Special Consideration of the Heart and Lungs. By Maurice Lewison, M.D., and Ellis B. Freilich, M.D., in collaboration with George C. Coe, M.D., all of the University of Illinois College of Medicine. 317 pages with 75 illustrations. Cloth. Price $3.00. Year Book Publishers, Inc., Chicago, 1941.

This is a good book and well serves the purpose indicated by its title. It makes a point which often has been made, but which has never left an impression or been followed out; namely, that no instrument of precision or laboratory test can take precedence of or replace the still indispensable tool and practice of the keen and discerning eye and the skillful, searching hand —after all these years of insistence and emphasis upon careful study of the patient himself by history-taking and physical examination. The book fulfills the latter quite well. It is concise, simply written, well illustrated and quite thorough. Physicians will appreciate its brevity and consult it often rather than read the larger and more ponderous volumes on the subject. There is a large section devoted to the heart and blood vessels, another to the respiratory tract, and smaller ones to other systems.

It is possible that this book could be further improved by placing some discussion on the evolution of symptoms and signs, especially upon earlier and more intangible ones. After all, the classic clinical pictures, so-called, are in many cases those of diseases too far advanced for help and will have to give way to diagnosis of what appears intangible, vague and fleeting, but is most important to an early recognition. H. B.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 NOVEMBER, 1941 NUMBER 11

HIGHLIGHTS OF DOCTOR RANKIN'S ADDRESS*

Efforts in this country to aid Britain must be increasingly multiplied in the immediate future if we are to become the arsenal of democracy, and multiplied again and again if we are to be adequately prepared to defend our own shores. In this maelstrom of war it is becoming increasingly apparent that production of arms alone may not be sufficient; there is a possibility that the battle of the Atlantic may broaden its scope and become the battle of the Western Hemisphere. This does not mean that we feel our early participation is essential, but it does mean, as we who saw service in the World War can testify, that in an effort to stamp out Hitlerism the combat should be carried out to its termination on European soil rather than in our own country.

Whether or not we want shortly to engage in active combat, or at some distant date, the fate of the world tomorrow will be decided on the battlefields of today, and as an integral part of the citizenry dedicated to the duties of national defense, the medical profession has taken certain steps, probably all well known, which definitely impose upon us the duty of sacrifice for the preservation of America. You are familiar with the plan submitted to the House of Delegates of the American Medical Association at its meeting in New York City, in 1940, by Colonel Dunham, Surgeon General of the United States Army. This plan called for most active cooperation between the medical department of the armed forces and the organized medical profession in order to provide not only medical care of the Army of the United States, the Navy of the United States, and the Public Health Service, but to assist in the active mobilization under the Selective Service Act, furnishing medical men for various boards and at the same time taking care of the community health needs. The answer of the House of Delegates to this suggestion was that of heartiest cooperation. Immediately a National Committee on Medical Preparedness was formed from members of the House of Delegates.

The initial step in mobilizing the medical men was the circularizing of your profession from the headquarters of the American Medical Association in Chicago to ascertain not only a man's willingness to serve but also his capacity. One hundred eighty-five thousand questionnaires were sent out, and approximately 150,000 answers were received, 133,000 of which have been transferred to punch cards and made available through the headquarters office in Chicago.

The second step, and a very important one, was the action of the Fact Finding Committee in regard to general practitioners, surgeons and specialists of all kinds operating in each corps area in each state. It was the duty of this committee to evaluate the professional activities of these men—the 156,000 who answered their questionnaires. These questionnaires have further been broken down in an attempt to estimate the availability of the entire medical profession. The army has established a rule that men over fifty-five will not be utilized for duty. That confines the data to men under fifty-five years of age, and from this the situation in each corps area has been evaluated. In Indiana 41.4% of your number are over fifty-five, and that leaves 58.6% from which to choose men for military service. Of those under fifty-five, your authorities estimated that 4.8% only were essential for duty at home, leaving 52.4% available for military duty. It was found that in the United States 58,666 were over fifty-five, and 88,542 were under fifty-five.

As a member of the National Medical Preparedness Committee assigned to the Fifth Corps Area, it has been my pleasure and duty to deal with men of the medical profession in the state of Indiana in this mobilization program, and I should like to take this opportunity to compliment and congratulate Colonel Bird and the officers of your organiza-

* Presented by Fred W. Rankin, M.D., President-elect of the American Medical Association, at the annual banquet of the Indiana State Medical Association in Indianapolis, September 24, 1941.

tion on the effective manner in which this program has been handled. Indiana and her sister state, Kentucky, vie with each other in the number of questionnaires answered. I think the average is about the same, about 99%, which is the best in the nation in states having a considerable number of physicians.

Of the 339 officers of the Reserve Corps in Indiana at the beginning of September, 1940, sixty-four resigned, thirty-seven were physically disqualified, and 157 were placed in active duty, leaving only eighty-one of the Reserve Corps to serve the civilian communities and hospitals. You might be interested to know that most of the officers of the Reserve Corps are on duty in the grade below field-rank. Some months ago I read an article showing that nine out of 150 were colonels, and eighty out of 349 were lieutenant colonels.

Following the circularization of the medical profession, you will recall that the Committee on Medical Preparedness, under the leadership of Dr. Irvin Abell, was formed under the auspices of the Defense Health and Welfare Service in Washington, and this committee presented to the House of Delegates of the American Medical Association, at its last meeting, a resolution urging the establishment of an agency to be known as the Procurement and Assignment Agency for physicians for the Army, Navy, and Public Health Service and for Civilian and Industrial needs of the nation. This recommendation was made to the proper military authorities and to the President of the United States, and, when the proper machinery is set up, unquestionably will be most advantageous in the selection of men for army service and for the care of civilian needs, which are equally essential. That idea was originated by your Committee on Medical Preparedness.

When the matter was carried to the proper authorities, it was found that this agency could not be established without legislative action. The latest available information from the authorities at the capital is that the necessary legislation is now being prepared.

In this crisis unity of the nation is the only factor that will insure ultimate success. Unfortunately, there are many indications that unity is not present. One group uses the present emergency to forward their own interests; another group allege that military invasion of our country is impossible. It is a matter of considerable pride that the medical profession cannot be numbered among these elements. No group in the nation has been more patriotic and self-sacrificing, and I believe the profession will ultimately get behind the program of procurement and assignment as outlined by the Medical Preparedness Committee. In this belief the latter committee has gone forward with the necessary steps to secure this agency to the point of Federal legislation, and, as I have said, I am sure the medical profession will cooperate.

If it is necessary for us to make further sacrifices, I am sure the medical profession will accept its task in the spirit and manner which has characterized its action in similar crises.

AVIATION MEDICINE*

LOUIS HOPEWELL BAUER, M.D.†
HEMPSTEAD, NEW YORK

I have been asked to talk to you today on the subject of Aviation Medicine. To give a general paper on such a subject in a brief space of time is a good deal like trying to cover ophthalmology or otology in a like period of time. All one can do is to touch briefly on the more important aspects. The subject had its beginning in the first World War and ever since has gradually developed in scope and importance. Briefly, it consists of the physical selection of the flyer, his medical supervision, and his physical protection. It involves such subjects as the physiology of altitude and high speed, reactions to cold and decreased barometric pressure, and the physiologic and psychologic reaction to stress and fatigue. It involves parts of several clinical fields of medicine, all applied to aeronautics.

A brief summary of the physical requirements of a pilot follows: We have to deal with vision, both central and peripheral. The pilot, especially the military pilot, must literally see on all sides at once. When two planes going at a speed of three hundred to four hundred miles an hour are traveling towards each other, it does not take long for them to meet from the time they are first visible to each of the pilots. Hence, the fields of vision must be normal. Acuity of vision is highly

* Read before the General Meeting of the Indiana State Medical Association, Indianapolis, September 24, 1941.

† Editor of *The Journal of Aviation Medicine*, Hempstead, New York. Consultant to Committee on Aviation Medicine of the National Research Council.

important, and in military pilots a 20/20 vision without correction is required; whereas commercial pilots are accepted if they have a 20/20 vision with correction, provided the uncorrected vision is not less than 20/50 in each eye. Private pilots must have merely a 20/30 corrected vision.

The pilot must have sufficient accommodative power to enable him to read maps and to read the instrument board. Color vision is important because of colored navigating lights, signal lights, markers and flares. Even more important are the different shades of green and brown on the terrain, which colors disclose its character and help in case of an emergency landing. Depth perception, or the ability to judge distance, is highly important; for the pilot is constantly judging distance from the ground, buildings, trees or other obstructions when landing or taking off, and the military pilot must be able to judge distance from other planes when flying in formation. The Howard depth perception apparatus is used in this test. Ocular muscle balance is carefully tested. Fatigue from flying or the effects of low oxygen may result in diplopia or may cause headaches in the individual with abnormal ocular muscle balance as a result of his attempt to prevent diplopia, and headaches are apt to lead to inattention.

Chronic diseases of the ear, nose, and throat are disqualifying not only because of their constitutional effect, in some cases obstructive in nature which interfere with free breathing, but also because fatigue and low oxygen may produce acute exacerbations.

Equilibrium comes into play in the constantly changing medium in which the pilot flies. It is important in blind flying where the pilot through his internal ears gets erroneous impressions of his position. Equilibrium is tested by his station, his gait, and his ability to stand on each foot alternately for fifteen seconds with his eyes closed.

The general physical examination is much the same as any thorough physical examination. All acute or chronic diseases are disqualifying. Particular attention is paid to structural defects which may interfere with the operation of the controls of the aircraft. The nervous system is examined with particular thoroughness. A personality study is made, which really is a psychiatric as well as a neurological examination. Not only are all organic diseases regarded as disqualifying, but cases of psychopathic inferiority are also eliminated, for it has been found that individuals who have constitutional inferiority do not last long as flyers. During the entire examination the examiner endeavors to rate the applicant's aptitude for flying. Apparently there is a sixth sense necessary for flying, for many individuals although physically perfect never become good flyers. Efforts have been made to assess this aptitude by specific tests, but so far no wholly satisfactory test has been found.

After the pilot has been selected, he is re-examined at frequent intervals. The military and commercial pilot is examined semiannually and other pilots annually. In addition, all military and air-line pilots are under constant medical supervision. Air-line pilots are limited to eighty-five hours of flying per month, for too much flying causes a loss of efficiency and often results in the development of aeroneurosis which is similar to, if not the same as, neurocirculatory asthenia.

Military pilots, and to a lesser extent airline pilots, are subjected to the effects of high altitude. The effects of high altitude, up to 30,000 feet, are due entirely to the diminished partial pressure of oxygen in the atmosphere, and the effects may be relieved by the use of supplementary oxygen.

The first effect of oxygen-want is deep breathing; then there is a feeling of exhilaration with a development of inattention, inability to concentrate, and a loss of coördination of the finer movements. The pulse becomes accelerated and there may be changes in the blood pressure level. Total mental inefficiency usually develops before circulatory collapse. The effects are insidious in development and often the pilot is unaware that anything is wrong. Pilots are now required to use oxygen at 10,000 feet. While nothing serious is apt to develop under 15,000 feet, the pilot becomes more easily fatigued and his flying ability and flying life are diminished unless he takes oxygen at a lower level. The use of oxygen immediately restores him to sea level conditions.

Above 30,000 feet, however, the pilot is not only subject to the oxygen-want, which constantly increases with altitude, but also to the effects of lowered barometric pressure *per se*. These effects result in the expansion of intestinal gases, causing restriction of breathing as a result of the limitation of the diaphragm. An even more disabling condition is experienced at low pressures, when nitrogen bubbles are given off in the blood stream and we develop an aero-embolism—a condition similar to caisson disease which is found in deep-sea divers and tunnel workers. The only means of prevention are either by slow ascent, which is not practicable, or by the inhalation of pure oxygen both before and during ascent. This condition has caused pilots considerable difficulty during the present war in Europe. Furthermore, while the use of supplementary oxygen will relieve the effects of low oxygen up to a certain point, above that point the pilot will die even though he is breathing pure oxygen. Above 47,000 feet the barometric pressure is so low that even 100% oxygen does not give the pilot sufficient oxygen pressure to sustain life. Also at these extreme altitudes the carbon dioxide pressure in the blood has fallen to such an extent that there is not sufficient stimulus to the hemoglobin to release the oxygen to the tissues. Hence, above this critical level, and for all practical purposes above 40,000 feet, the pilot can ascend with safety only in a pressure cabin.

In such a cabin the pressure is artifically kept at a level compatible with life.

Military pilots are also subject to the effects of high speed. Dive bombing pilots attain a speed of four hundred to five hundred miles an hour before they pull out of the dive. Change of direction at such terriffic speed results in draining the blood away from the head and pooling it in the splanchnic area. Unconsciousness results and brain and eye damage has occurred. The use of a crouching posture and of an abdominal belt to prevent this pooling of the blood help in preventing blackout. At the very high speeds the pull is anywhere from 5 to 9 G's—1 G representing the pull of gravity. At 5 G's the individual loses the power to move his muscles and, hence, cannot even breathe.

Military and commercial planes are becoming increasingly complicated and the flying of these planes, added to the effects of fatigue, low oxygen, low barometric pressure and high speed, results not only in physical but marked nervous and mental strain. Digestive complaints are common and are due in part to the irregular hours and in part to neurogenic influence. With the constant change in altitude there is a necessity for healthy ears, else ruptured ear drums become a possibility. Coronary disease seems to be on the increase. Is the high tension of the occupation a factor?

Air sickness is the bugaboo of the layman although it need not me. The airlines have shown that not more than five per cent of the passengers become air sick. In good flying weather the percentage is almost nil. Air sickness is the same condition as sea sickness; it is merely another form of motion sickness.

While a flyer does not need to be a superman, he should be physically and psychologically sound, and should be under constant medical supervision. In no occupation is the physical condition such an important factor as in flying. Examining physicians should be trained in aviation medicine and should know the problems of flying.

Aviation medicine is a specialty in itself, and with the increase in flying it is becoming increasingly important because of the development of new physiological problems.

ENDOCRINE TREATMENT IN GENERAL PRACTICE*

CHARLES MAZER, M.D.†
PHILADELPHIA, PENNSYLVANIA

The selection of cases, dosage and mode of administration usually determine the difference between proper use and abuse of an endocrine product. This dictum was well illustrated in our early experience with one of the first glandular products, pituitrin. It was indiscriminately employed, in many instances with disastrous results, to hasten the second stage of labor in cases of undiagnosed obstruction. It was, moreover, given hypodermically in doses far in excess of the physiologic requirement, which led to severe contractions of the pregnant uterus with irreparable injury to both mother and infant. As a result of bitter experience we now use pituitrin in the second stage of labor only in instances of inertia uteri, applying small doses to the nasal mucosa wherefrom absorption is slow and lasting, resulting in mild and intermittent uterine contractions. When, however, strong uterine contractions are necessary, such as in instances of postpartum bleeding, large doses (10 or 20 international units given hypodermically) are employed to the advantage of the patient.

Since 1909, when Dale's discovery[1] made pituitrin generally available, numerous other endocrine principles have been discovered, purified and even synthesized. Their potentiality for good or bad, depending on the selection of cases, dosage and mode of administration, is increasing almost daily. The interchange of opinion, based on clinical as well as experimental experience, concerning the most effective utilization of these newly discovered therapeutic agents is, therefore, a course in the right direction.

THERAPEUTIC INDICATIONS OF ESTROGEN

One of the most widely used hormones is estrogen. The term embraces all chemicals, regardless of their source, capable of increasing growth and vascularity of the müllerian tract—fallopian tubes, uterus, and vagina. It is therefore commonly employed, wisely or unwisely as the selection of the case may be, in hypoplasia of the uterus and in vaginitis of children and senile women. Estrogen, given continuously in large doses, also inhibits almost all of the several activities of the anterior pituitary lobe and is, therefore, useful in combating severe menopausal symptoms, certain types of cystic mastitis, menstrual migraine, and undesirable lactation.

The natural estrogens are obtained almost invariably from the urine of pregnant mares and are in the form of theelin and theelol. A negligible quantity is obtained from the human placenta. The chemical conversion of theelin into estradiol benzoate enhances its potency five to six times. The aforementioned estrogens differ so widely in

---

* Read before the General Meeting of the Indiana State Medical Association, September 25, 1941, Indianapolis.

† From the Division of Gynecology, Graduate School of Medicine, University of Pennsylvania.

[1] Dale, H. H.: *Biochem. J.*, 4:427, 1909

potency that the weight unit in terms of milligrams and fractions thereof is meaningless. The international and the Allen-Doisy rat units, on the other hand, convey definitely the measurable potency of the respective estrogens. Ten international units are approximately equal to one Allen-Doisy rat unit. The natural estrogens are only slightly effective when given orally, the ratio between the parenteral and oral dose being nearly one to twenty. The low potency of orally administered natural estrogen could be compensated by the administration of comparable doses if the cost of the substance were not so high. When given hypodermically the interval between injections should be no greater than four days, for none of the estrogen remains in the circulation thereafter.[2]

Because of the relative ineffectiveness of the natural estrogens when given orally and the high cost of the products, there is a wide search for a suitable synthetic estrogenic substance. Of the many substitutes thus far submitted for clinical investigation diethylstilbestrol and modifications thereof give promise of ultimate acceptance. Diethylstilbestrol is a highly active estrogen when administered either orally or hypodermically. Unlike the natural estrogens, diethylstilbestrol evokes nausea, vomiting, epigastric pain and malaise in a considerable number of patients when given in daily doses exceeding 0.5 milligrams. This, however, is not a negligible amount in terms of potency since it represents 2,500 Allen-Doisy rat units or 25,000 international units. Pregnant and postpartum women tolerate even massive doses of diethylstilbestrol. It is, therefore, commonly employed when needed in daily doses of fifteen milligrams for the supression of lactation. The natural estrogens are too costly to be employed in effective doses for this purpose. A more promising synthetic estrogen is probably dihydro diethylstilbestrol (hexoestrol). According to Bishop,[3] as much as two milligram doses of the substance cause no adverse symptoms. Since the substance is even more potent than diethylstilbestrol, its tolerance by patients in such doses is highly significant.

Conditions wherein estrogen has proved its worth are the severe menopausal syndrome, migraine without apparent cause, certain types of amenorrhea, the vaginitis of children and senile women, and undesirable lactation. It is also used with questionable results in many other conditions.

In the severe menopausal syndrome large doses, such as 10,000 rat units (equivalent to 100,000 international units), given hypodermically twice weekly are required during the first month of treatment; thereafter gradually reduced doses may be given until the patient is comfortable on oral therapy or no therapy at all. The results depend on correct diagnosis, adequate dosage and length of treatment.

In cases of migraine without apparent cause equally large doses must be employed twice weekly during the first month, and thereafter half the amount should be given for several months. The high dosage usually causes a delay in the menstrual flow by a temporary inhibition of the gonadotropic function of the anterior hypophysis. Withdrawal of treatment re-establishes the menstrual rhythm and fertility.

In the treatment of amenorrhea estrogen plays a subsidiary role inasmuch as the hormone is incapable of stimulating either the anterior hypophysis or the ovaries. Its activity is restricted to the uterus which is rendered more responsive to renewed pituitary-ovarian activity as a result of the simultaneous use of pituitary-ovarian stimulants, such as low-dosage irradiation and gonadotropic substances. When employed as an adjunct to other remedial agents, small doses, such as 1,000 international units given hypodermically every other day or 2,000 international units given orally three times daily, are sufficient.

In a small group of amenorrheic patients—those in whom uterine atrophy, either congenital or acquired as a residium of a previously existing endocrinopathy, is the sole cause of amenorrhea—estrogen therapy alone, when judiciously employed, restores the menstrual rhythm permanently. These patients show normal levels of estrogen and progestine excretion, indicating the presence of a normal pituitary-ovarian balance. In other words, the uterus—the end organ of the menstrual mechanism—is incapable of responding to a physiologic supply of estrogen and progestin and requires more than the ovaries normally produce to reactivate it. In such cases the administration of 10,000 rat units of estrogen (equivalent to 100,000 international units) every three or four days for two weeks out of each month and continuing for three or four successive months eventually restores uterine responsiveness to the ovarian steroids. When given intermittently such large doses do not inhibit the gonadotropic function of the anterior hypophysis as is the case in continuous treatment with large doses.

In vaginitis of children and senile women estrogen has no peer. In both extremes of life the vaginal mucosa is thin and susceptible to infection because of the absence of the ovarian hormone. The administration of estrogen increases the number of layers of epithelium, the glycogen content of the constituent cells and the acidity of the vaginal secretions, through the conversion of the glycogen into lactic acid. The cornified superficial layers of vaginal epithelium shed and carry with them the pathogenic bacteria. The substance may be given either hypodermically in doses of 2,000 rat units (equivalent to 20,000 international units) every other day, or vaginally in the form of suppositories for a period of from six to eight weeks.

---

[2] Mazer, C., and Israel, S. Leon: *Jour. A.M.A.*, **108**:163, 1937.

[3] Bishop, R. K.: *Lancet*, **1**:629, 1940.

THERAPEUTIC INDICATIONS OF PROGESTIN

Progestin is the corpus luteum hormone which converts the estrogen-primed endometrium into a pregravid state in preparation for the reception and housing of a fertilized ovum. It also maintains the uterus throughout pregnancy in a state of quiescence. It is, therefore, purely a fertility hormone without a counterpart in the male economy. Commercially, it is obtained either from hogs' ovaries or is produced synthetically. In its crystalline form it is known as progesterone and is standardized on the basis of weight or biological units. A milligram of the crystalline substance is approximately equal in potency to the biological Corner rabbit unit.

In cases of habitual abortion progestin, given hypodermically in doses of five units every other day until viability of the fetus, has proved most effective as a prophylactic measure in about sixty per cent of the patients thus treated. In threatened abortion it is almost equally effective when given daily and complemented by rest in bed and the administration of vitamin E and desiccated thyroid substance. In the use of progestin for threatened abortion one should be fairly certain that he is not dealing with an inevitable abortion wherein it simply delays expulsion of the detached product of conception by inhibiting uterine contractions. Effacement of the cervix and a negative rabbit test with a total of five cc. of urine point to an inevitable abortion.

In cases of sterility solely due to inadequate progestin preparation of the endometrium, as determined by premenstrual endometrial biopsy, progestin in doses of five to ten units given every other day during the second half of the menstrual cycle for three successive months often solves the problem of the barren marriage.

Recently, pregneninolone (pranone) has been administered orally in doses of ten milligrams daily as a substitute for progestin. Chemically, it is closely related to both progestin and the male hormone, testosterone. Experimentally, it nevertheless produces all of the uterine effects of progestin. There is, in my opinion, no advantage in its use over that of progestin except in instances of unavailability of hypodermic medication. Moreover, it is a substance foreign to the female economy and its effectiveness has not been definitely established clinically.

THERAPEUTIC INDICATIONS OF THE MALE SEX HORMONE TESTOSTERONE

The male sex hormone, testosterone, like estrogen, is incapable of stimulating the gonads to increased endocrine or spermatogenic function; in fact, continuous treatment inhibits the pituitary gland and indirectly inhibits the testicles. If administered in small doses it may be used to advantage in stimulating the ejaculatory ducts and the prostate gland in cases of infertility due to abnormal viscosity of their secretions. The widely heralded cures of prostatic hypertrophy by the administration of testosterone have not been duplicated by the most careful observers. However, testosterone serves excellently in replacement treatment of patients suffering from a lack of this substance, as seen in eunuchoidism and the male climacteric. In such cases it is most convenient to give it hypodermically in the form of testosterone propionate every other day in doses of from five to twenty-five milligrams, or orally in the form of the methyl testosterone in doses of ten milligrams two to three times daily. Four milligrams of methyl testosterone given orally are said to be equal to one milligram of testosterone propionate given hypodermically.

In the female the administration of testosterone propionate, given in doses of from five to twenty-five milligrams every other day for a period of a month, will temporarily arrest premenopausal dysfunctional uterine bleeding in about fifty per cent of the patients. At this age a temporary arrest of dysfunctional uterine bleeding often implies a permanent cure inasmuch as the natural menopause often sets in to complete the cure. The smaller doses practically never produce masculinizing manifestations in women of this age. The larger doses do evoke temporary facial hair growth and huskiness of the voice in about six per cent of the cases treated for a period of a month or longer. Attempt should never be made to treat medicinally postmenopausal uterine bleeding, even for a short time, because of the prevalence of malignancy at this stage of life.

The use of testosterone propionate in younger women suffering from dysfunctional uterine bleeding is irrational for it cannot and does not correct the underlying cause which usually is either a pituitary-ovarian or thyroid malfunction. It also has a greater tendency to produce masculinizing manifestations in young women than in women of the menopausal age. The temporary beneficial effect of small doses is apparently due to the ability of testosterone to nullify the influence of estrogen upon the endometrium, whereas the larger doses temporarily inhibit the pituitary-ovarian mechanism and menstruation. The usefulness of testosterone for the relief of dysmenorrhea and a host of other gynecological conditions has not been established.

THERAPEUTIC INDICATIONS OF PITUITARY AND PITUITARY-LIKE GONADOTROPIN

A gonadotropin is an ovarian and testicular stimulant regardless of its source.

The available gonadotropins are derived from animal pituitaries, pregnant mare serum and human pregnancy urine.

Pituitary gonadotropic extracts are insufficiently concentrated to produce an appreciable therapeutic effect. They are standardized on the basis of the rat unit. Unfortunately, the interpretation of the rat unit in regard to pituitary gonadotropin varies so widely that the labeled number of units are often

misleading. Injections of available pituitiary gonadotropins have, in my experience, failed to relieve functional menstrual disorders; however, in deficient spermatogenesis of pituitary origin injections thereof for a period of three months have, in some instances, produced an increase of spermatozoa.

Extracts of pregnant mare serum are highly potent in cases of sterility due solely to anovular menstruation. They are standardized either in terms of the international unit or the Cartland-Nelson unit. One of the latter equals seventeen international units. In instances of anovular menstruation, as evidenced by the absence of the secretory phase in the endometrium obtained premenstrually, hypodermic injections of two hundred to four hundred international units of equine gonadotropin, given in six daily doses from the sixth to the twelfth day of the beginning of the menstrual flow and continued for three consecutive months, often results in pregnancy after the first or third course of treatment. It is better to give the last dose intravenously. The patient must, however, be tested for sensitiveness to horse serum before each course of treatment. Equine gonadotropin has proved a total failure in the treatment of amenorrhea and dysfunctional uterine bleeding. It is widely used with questionable success in deficiencies of spermatogenesis.

Chorionic gonadotropin, obtained from the urine of pregnant women or human placenta, is most valuable in the control of dysfunctional uterine bleeding of puberal girls and women of childbearing age if given hypodermically in doses of five hundred international or rat units every day while the bleeding persists and every other day thereafter until fifteen doses are administered. It is valueless in the treatment of premenopausal dysfunctional uterine bleeding, amenorrhea, or deficient spermatogenesis. It is, however, valuable in the treatment of undescended testicles without obstruction along the inguinal canal. The dose should be five hundred international units given every other day for a period of three months. The addition of five milligrams of testosterone propionate is helpful in developing the penis and scrotum.

The combination of pituitary and chorionic gonadotropins stimulates the human ovaries intensely although neither of the two principles employed individually produce any appreciable effect. Commercially, this combination is known as synapoidin, standardized on the basis of the synergy unit which is the total minimum quantity capable of increasing the weight of infantile rat ovaries five hundred per cent.

In sterility solely due to anovular menstruation, the administration of 7.5 synergy units every other day during the first half of the menstrual cycle often results in the cure of barrenness. Lack of success with this product as well as with equine gonadotropin is usually due to an associated factor, such as stenosis of the fallopian tubes or infertility of the male partner.

In dysfunctional uterine bleeding of puberal girls and women of childbearing age, the intramuscular administration of synapoidin in doses of fifteen synergy units every other day is effective in more than fifty per cent of the cases treated for a period of a month.

The results in severe amenorrhea are less striking but nevertheless appreciable. In this condition it should be given in doses of fifteen synergy units every other day for twenty days each month and continued for a period of five to six months. The simultaneous administration of small doses of estrogen is helpful in rendering the uterus more responsive to the improved ovarian activity.

I wish to add, parenthetically, that the most effective treatment of amenorrhea due to pituitary and ovarian deficiencies is low dosage irradiation of the pituitary gland and ovaries by the technic described by Edeiken[4] and Kaplan.[5]

The growth promoting hormone of the pituitary gland is available for use in pituitary dwarfism before closure of the epiphysis. It is commercially supplied in vials of from ten to one hundred growth units per cubic centimeter. The standardization of the product is not uniform, each pharmaceutical house placing a different interpretation on the growth unit. In these cases it is better to employ a polyhormonal pituitary extract, each cc. representing a gram of fresh pituitary substance. It is, moreover, better to give simultaneously desiccated thyroid in suitable doses.

The pituitary thyrotropic hormone has a very limited use in the hypothyroidism secondary to a pituitary deficiency. The condition is characterized by the absence of myxedema, despite the very low basal metabolic rate, complete amenorrhea, and tolerance to large doses of desiccated thyroid. Since there is a simultaneous deficiency of most, if not all, of the other anterior pituitary hormones, it is better to employ the polyhormonal extract mentioned in the foregoing paragraph.

The pituitary lactogenic hormone is very useful in deficient lactation when breast feeding is essential. In most instances of deficient lactation the daily hypodermic administration of one hundred to two hundred pigeon units of prolactin for seven or more days increases milk secretion to a remarkable degree.

Time and space do not permit a discussion of the various other conditions wherein the aforementioned and other endocrine products are employed successfully. Moreover, the treatment of some endocrinopathies not included in this presentation, such as diabetes mellitus and thyroid malfunction, is too well known to require elucidation.

---

[4] Edeiken, L.: *Am. J. Obst. & Gynec.*, **25**:511, 1933.
[5] Kaplan, I. I.: *New York State J. Med.*, **38**:626, 1938.

2047 Spruce Street.

This is the eleventh of a series of articles on Indiana's "twelve great killers." In 1940 there were 525 deaths from Diabetes in Indiana. Next month the article will deal with Syphilis.

THE MANAGEMENT OF THE JUVENILE DIABETIC*

M. R. SHAFER, M.D.
INDIANAPOLIS

Today, of all diabetics the child with diabetes will live the longest. Obviously, his diabetic education and management should be most complete.[1] The physician who is more accustomed to the adult form of the disease often applies the same standards of control and the same principles of treatment to the juvenile diabetic. It is the purpose of this paper to emphasize certain features peculiar to childhood diabetes and those which distinguish it from the adult form of the disease.

The true causative mechanism of diabetes is still unsolved. The factors of obesity, history of previous infection, and trauma are of little importance in the child. The evidence of a hereditary predisposition, however, is widely accepted and becomes increasingly significant as the child becomes older. Another factor is that which precipitates the onset of the disease in the individual who has the proper hereditary background. This very likely results from a series of endocrine changes, especially of the pituitary gland.

The onset and nature of the disease differs markedly from that of the adult. In the child the disease is acute and virulent. Often the child is first seen in diabetic coma, and the probability thereof seems to vary inversely with the age of the patient. The signs and symptoms in the child are generally those that are classical of diabetes in the adult. The outstanding symptoms may be a rapid loss of weight and strength, a pronounced thirst and dry mouth, and a frequency of urination. Benign forms of glycosuria are rather common in children. In order that the child may not be treated needlessly as a diabetic, the doubtful cases may be ruled out by doing one or more of the standard glucose tolerance tests, using one and three-fourth grams of glucose per kilogram of body weight.

Acceptable treatment of the diabetic child consists in a standardized and balanced diet, a combination of regular and protamine zinc insulins, exercise, and education and instruction of the patient or the family. This may be quite difficult, and at times the difficulties are so numerous that the disease may be inadequately managed. We believe that the patient is not well controlled if his metabolism is not as near normal as treatment will permit. The initial stabilization of the juvenile patient is satisfactorily accomplished only through detailed laboratory studies, including quantitative determinations of urinary sugar wastage and frequent determinations of blood sugar. To attain true stability we agree with those who make it a practice to use blood sugar content as a guide whenever possible. Hospitalization during the period of adjustment is mandatory.

The principle of dietary treatment differs markedly from that of the adult. The latter is often obese or must be prevented from gaining weight, whereas in the child treatment must be directed toward an increase in body growth and development. Emphasis is placed on a diet adequate in protein as well as in the total number of calories it affords. The question of the carbohydrate value of the diet may be a personal one, depending on whether one believes in a so-called high or low carbohydrate content. The optimum would seem to be that amount which satisfies the individual providing he is capable of metabolizing it. The correct amount of fat is that which provides for proper weight adjustment. The protein content of the diet of the growing child should consist of from two and one-half to three grams per kilogram of body weight. The diabetic diet as a rule provides an adequate vitamin content, and this is enhanced by the feeding of milk in the diet at all meals.

Every diabetic child requires insulin and this should be started as soon as supervision is adequate. There is now little or no question as to the type of insulin to employ. Protamine zinc insulin finds its greatest indication in juvenile diabetes. This is true because of the unfailing occurrence of hyperglycemia in the child diabetic during the night, with resulting high fasting blood sugars. The child whose blood sugar levels can be controlled with protamine zinc insulin alone is extremely rare. Almost without fail he will require separate injections of regular and protamine zinc insulin in the morning, with additional regular insulin at suppertime and possibly also at noon. Protamine zinc insulin is always given before breakfast and the dosage may vary from five to thirty units depending upon the age and the size of the child and the level of the fasting blood sugar. We attempt to maintain the blood sugar at a level of one hundred milligrams, or less, per one hundred cubic centimeters of blood, such as is found in the normal individual. The accessory regular insulin dosage of a morning is controlled by the pre-lunch blood or urine specimen. The pre-supper test determines the necessity for regular insulin at noon and the dosage of the regular insulin at supper.

* Read in a symposium on "Diabetes" presented at the Section on Medicine of the Indiana State Medical Association at Indianapolis, September 24, 1941.

[1] Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: The Treatment of Diabetes Mellitus, 7th ed., Philadelphia, Lea and Febiger, 1940, page 14.

Occasionally, considerable variation will be found in blood sugar tests made at various times of day, but often this may be minimized by arranging a slightly unequal division of the diet in the three meals.

Insulin reactions are not uncommon, and their recognition may be more difficult than in the adult. Listlessness, negativism, peevishness, and circumoral pallor are signs and symptoms common to the child. Headaches, nausea and vomiting may result from an abnormally low blood sugar after the administration of protamine zinc insulin. These reactions may occur at any time during the day or night. Reactions from protamine zinc insulin occur more commonly in the early morning hours and before breakfast. This is the reason that every patient receiving protamine zinc insulin should take, in addition to his diet, fifteen grams of carbohydrate at bedtime in the form of four crackers and one hundred grams of milk, or the equivalent thereof. Lipodystrophy, or the fat absorption at the site of insulin injections, is frequently seen among children. This condition can be avoided by using areas cosmetically unimportant and by frequently changing the site of the injection.

Regarding complications of childhood diabetes, one is particularly concerned with the development of acidosis and coma, infections, hepatomegalia, degenerative changes, and the occurrence of retarded growth and development. Diabetic coma occurs about ten times more often in the child than in the adult, particularly because of the increased virulence of the disease and the greater exposure to intercurrent infection. Before insulin became available, nearly every child who had diabetes died in coma within a few months from the time of onset of his disease. The treatment of this condition consists largely in the administration of sufficient insulin, in giving an adequate quantity of fluids, and in lavaging the stomach. The size and frequency of the injections of insulin will depend chiefly on the age and size of the child, the level of the blood sugar, and the response that is made. We favor the intravenous administration of physiologic saline solution without glucose until the initial blood sugar level has been well reduced. A gastric lavage followed by an enema is of extreme importance in correcting stasis and dilatation of the gastrointestinal tract. Circulatory and renal stimulants are seldom necessary, as is required in the adult. The transfusion of blood plasma which is becoming more available, may aid greatly in recovery from prolonged collapse. In many instances diabetic coma is needless and avoidable, and its incidence has been and will continue to be reduced as a result of better education on the part of the public as well as the medical profession.

The infections most frequently contracted by diabetic children are tuberculosis and infections of the urinary tract and skin. These complications are decreasing, but the prognosis for the diabetic with pulmonary tuberculosis is extremely poor, and tuberculosis ranks second to coma as the cause of death in children with diabetes.[2]

It is a well known fact that children with severe diabetes which has not been brought under satisfactory control may have a marked enlargement of the liver. While this may be regarded as one of the outstanding complications of juvenile diabetes, the etiology is not clear and the pathology is unrevealed because of a lack of postmortem and biopsy material. It is generally believed that this enlargement is due to the deposition of fat through the liver, and indirect evidence supports this belief.[3] The prognosis in this condition is excellent provided protamine zinc insulin is administered. With the use of this insulin large livers may be reduced to normal size within six to eight weeks.

In a discussion of complications of juvenile diabetes mention must be made of the question of growth and development and the retardation which may occur. It is now well known that prior to the onset of the disease the diabetic child is generally overheight. White[4] found this to be true in eighty-seven per cent of the children studied. There is strong evidence that a hyperpituitary influence exists at this stage. This is only a transitory state, however, as is borne out by the fact that after several years of diabetes the average weight and height of these children is essentially normal, and that eight per cent of the diabetics are actually dwarfish. In the past this shortness of stature was thought to be the result of undernutrition, and more particularly of protein starvation. A poor state of control of diabetes has been regarded as another causative factor. There are, however, underdeveloped diabetic children in whom nutrition has been optimal and where control of the diabetes cannot be criticized. These cases of dwarfism are doubtlessly the result of a hypopituitarism which followed an increased activity of the gland, in fact the majority of these cases are said to be pure pituitary dwarfs.[5] Endocrine therapy is generally effective at any time before closure of the epiphysis of the long bones. Treatment consists of the administration of combinations of anterior pituitary preparations rich in growth factor, testosterone propionate, and thyroid substance.

CASE REPORT

Larry is presented as a typical child diabetic whose disease is of short duration. He is now just five years of age. Six months ago, as an unknown diabetic, he was sent into the hospital with symptoms of an acute acidosis thought to be non-specific in nature. Within a few hours after admission he went into coma and it was then

[2] White, P.: Diabetes in Childhood, The Treatment of Diabetes Mellitus, 7th ed., Philadelphia, Lea and Febiger, 1940, page 692.

[3] Marble, A.; White, P.; Bogan, I. K., and Smith, R. M.: Enlargement of the Liver in Diabetic Children, I—Its Incidence, Etiology, and Nature, *Archives Int. Med.* **62**:740-765 (Nov.), 1938.

[4] White, P.: Endocrine Manifestations in Juvenile Diabetes, *Archives Int. Med.* **63**:39-53 (Jan.), 1939.

[5] Houssay, B. A.: Dunham Lectures, Harvard—1935, cited by White.[4]

learned that he had diabetes. This is not unusual in children as the disease frequently is not discovered until the patient is in coma. He was given the routine treatment for coma and his blood sugar dropped very rapidly. He then proved to be quite unstable, was sensitive to insulin for a few days, did not eat well, had a few reactions, but soon became stabilized—without further difficulty. He left the hospital in ten days on a diet of 100 grams of carbohydrate, 70 grams of protein, and 90 grams of fat, and an insulin dosage of 8 units of regular with 12 units of protamine before breakfast, 4 units of regular before lunch, and 4 units of regular before the evening meal. Since then he has gained remarkably in tolerance, was able to discontinue both noon and evening injections of insulin in a month's time, and for the past four months he has been unusually stable. He is now under what we believe to be excellent control, is using the same diet and is taking an average insulin dosage of six units of regular with ten units of protamine before breakfast, with no insulin at noon and none before the evening meal. He has gained ten pounds in weight and two and one-half inches in height since the treatment was begun six months ago.

CASE REPORT

Leon D. is presented as a case of diabetic dwarfism, which we believe to be largely due to an improperly controlled diabetes. Leon is now eleven years of age. His diabetes was discovered at the age of twenty-three months. At that time he was three inches underheight and five pounds underweight. He was seen only two or three times for check-up in the next two years, and once again three years later. At this time, in 1936, he had developed a definite dwarfish appearance. He was not seen again for five years and then only because he had received a cerebral concussion when struck in the street by a truck. It was apparent that during the intervening years his diabetes had not been well controlled, principally because of lack of proper balancing of his blood sugar levels. Although his diet had been weighed at all times and he had received three doses of unmodified insulin regularly; nevertheless, without the benefit of protamine insulin his fasting blood sugars proved to be extremely high. His lack of growth and development was even more evident then, and he was seven inches underheight and twenty pounds underweight at that time. His diabetes has been well controlled since then, with a combination of regular and protamine insulin, and sufficient protein has been added to his diet. He has regularly received testosterone propionate alternated with antuitrin G, and has been given thyroid intermittently. Since his accident eleven months ago he has grown three inches in height and has gained eighteen pounds in weight.

CASE REPORT

Martha B. represents a case of fairly long duration, whose disease began at the age of two years. She has come along through the more difficult period of puberty when the disease is more unstable, graduated from high school, married, and is now the mother of a three and one-half month-old baby boy. Martha will, I think, admit that there were many times during her girlhood when she would get off her diet. She was not always under the best of control. In spite of this she has done rather well, and developed acidosis only once. I believe that her experiences during her pregnancy have proved to her that she must now cooperate one hundred per cent if she is to live and raise her son. Her pregnancy was complicated by a recurrent low grade pyelitis and a mild toxemia shortly before delivery. She gained moderately in tolerance after the middle of the third trimester, necessitating several reductions in insulin dosage. She was not given stilbestrol, for at that time we had not begun using it as a prophylactic, but we have since employed it in two other cases with no evidence of toxemia. She was delivered by cesarian section at eight and one-half months. Following this she showed a marked gain is carbohydrate tolerance, as is frequently seen following delivery, and her diabetes was quite unstable for the first week. Her insulin requirement at present is about the same as it was prior to her pregnancy.

SUMMARY

The course of juvenile diabetes now appears to be a favorable one in most respects. The education and protection of the child and his family is essential to its success. Diets must be adequate in protein to insure proper growth and should be adjusted, so far as possible, to the individual's requirements and preferences.

Better control of the blood sugar level throughout the twenty-four hours has been made possible by a combination of regular and protamine zinc insulin. This has undoubtedly accounted for a reduction in the incidence of acidosis, hepatomegalia, and complicating infections, and will probably aid materially in further prolonging the expectancy of life of the diabetic child. Acceptable standards of control insist upon normal blood sugar levels and freedom from glycosuria in ninety per cent of the tests. The fact that this result is not only desirable but also attainable with a little patience and effort is the challenge facing every physician who treats a diabetic child.

ABSTRACT

THE VALUE OF INFLUENZA A VACCINE

Evidence that vaccination against influenza, although it does not prevent the disease, may reduce the incidence and favorably modify its severity, is presented by Gilbert Dalldorf, M.D., Elinor Whitney and Arthur Ruskin, M.D., Valhalla, N. Y., in *The Journal of the American Medical Association* for June 7.

The three authors investigated the value of influenza A vaccine, developed by F. L. Horsfall Jr., M.D., and E. H. Lennette, M.D., in 1940, by vaccinating 415 of 826 hospital employees. The remaining number of employees were used as controls. The vaccine was administered on Dec. 11 and 12, 1940, and during the latter part of the following month a small epidemic of influenza occurred among the employees. Of the 77 cases of the disease that occurred in the outbreak, 32 developed in the vaccinated group and 45 in the control group of employees.

"No differences between the two groups were observed other than that fever was of shorter duration among the vaccinated persons, that pneumonitis of a degree which could be detected by roentgen examination occurred only among those who had not been vaccinated and that physical signs of pneumonia were twice as common among the controls," the authors say.

"Against this failure to prevent influenza must be considered the evidence that the duration of the disease and pulmonary involvement seem to have been reduced by vaccination. . . ."

This is the second article on Diabetes, Indiana's "Eleventh Great Killer."

THE MANAGEMENT OF THE ADULT DIABETIC*

ROSCOE H. BEESON, M.D.
MUNCIE

You will undoubtedly concede that there is a difference between the management and the treatment of the adult diabetic as compared with the juvenile diabetic. In the few minutes allotted to me I shall endeavor to present a procedure which has been practical and has achieved fair results over a period of several years in the average case of diabetes mellitus.

In the past few years our ideas of this metabolic condition have changed greatly, for instance, in regard to diet. For many years we thought the proper procedure was to give a diabetic a high fat and low carbohydrate diet, being just the opposite of the non-diabetic diet. Today we treat the diabetic almost like a human being—give him practically a non-diabetic diet, it still being a high carbohydrate low fat diet.

We used to strive to have the patient's urine free from sugar at all times. Now, many of our foremost diabetic specialists believe there is very little or no significance in sugar appearing in the urine after meals if the early-morning specimens are sugar-free and the morning blood sugar is within fair limits. I am not sure that the administration of protamine zinc insulin has not engendered the above conclusion, for this is the effect produced in the majority of cases so treated. Many physicians, like myself, are still of the opinion that it is wise to have the urine sugar-free and the blood sugar within normal limits unless certain complications, such as a severe myocardial degeneration, argues for a higher blood sugar. The above mentioned changes in conception have had their effect in the management of the adult diabetic.

The patient is usually first seen in the hospital or in the office. If he is in the hospital he is usually found to be suffering from one or more complications of diabetes, or he is there for a study of his condition and to acquire an education concerning his malady. If it is the former, after the acute conditions are over, his management will be the same as if he were at the office, so the following remarks will still hold true.

When the average patient presents himself to a physician, usually one of two things has happened: he has recently learned that he is a diabetic and has visualized himself as soon having all the bad things which diabetes may bring—amputations, etc.; or, this patient may have been a diabetic for some time and been under the watchful guidance of his lay friends with their back-yard advice; or, he may have gone so far as to take gallons of salt petre and vinegar, and still for some unaccountable reason has not been cured of his diabetes. He is usually emotionally upset and is quite sure he will follow instructions so far as diet is concerned; but, if he has to take insulin, which requires the use of a needle, he may be dubious about even starting the treatment. When this occurs it is certainly up to the doctor to sell himself, for of all the consultations he may have with this patient this is by far the most important one. You might well ask just how he will do this. In the first place, if at all possible, he should give the patient enough time to tell his whole story. If this is not possible, make the appointment for the near future, stating that you want sufficient time to make a thorough examination. It will not take long to obtain specimens of urine and blood for sugar estimation at this time. Give the patient written instructions to save urine at prescribed times, also explain that you want a written list of the approximate amount and the kinds of food eaten at each meal preceding the obtained specimen, and also instruct him to bring the urine specimens and the food report when he returns for his next appointment. This procedure, correlated with a thorough clinical history, physical examination, laboratory examination, and your "seeming knowledge," usually gains the patient's confidence. Confidence is absolutely essential. It often happens that this confidence will bring out information which you would not otherwise obtain; often it is from the economic standpoint and this will change the management of his case. He might tell you that he used to be able to do work which paid him twice as much as the watchman job he now has, but that he was so tired and weak, lost so much weight, could not eat enough food without having too much sugar and did not want to take insulin, so he is now a watchman. This is one type of case in which I invariably prescribe insulin. The result is that he takes on weight, usually obtains his former economic status, and is again in his proper psychological sphere.

I believe a diabetic education is the foundation for proper management. The patient is subject to the condition and will have to apply certain fundamentals, more or less, as long as he lives—and he absolutely must know these fundamentals. I insist that he have some relative or friend with him who can prepare food, give insulin, etc. At times the patient's mentality requires that this be done. This also limits the amount of his education and slightly changes

* Read in a symposium on "Diabetes" before the Medical Section of the Indiana State Medical Association at Indianapolis, September 24, 1941.

the management of his case. Even the most intelligent patients should not be given too much information at one time, for the facts are so new to them that they usually become confused. This pertains more often to food values and the figuring of diets. I usually have them compute the calories and the glucose value of the food which was prescribed for them and which they have prepared. When they find they have made no mistakes, they begin to feel it is not so unfortunate to be diabetics and that they are going to cure themselves. They are even more sure of this when they learn how to do a Benedict test for urinary sugar, and find it absent; and do a Gerhart's test for diacetic acid, and find none present. These tests are essential and are quite simple, and all patients are given a full knowledge thereof.

We teach these diabetics to have a proper respect for gangrene, with its sometimes attendant operations, and minute directions are given for the care of the extremities. They are told of the dangers of infection as an etiological cause for acidosis and coma, that they should be in touch with their physician, and the necessity for oft-repeated laboratory tests. Emphasis is stressed on the danger in not adhering to their diet and that this is a cause of coma. They are taught the differential diagnosis between coma and insulin reaction. They are told that so far no medicine, which can be taken by mouth, has been discovered which will cure or even serve as a good treatment for diabetes. They are cautioned not to change from regular insulin to modified insulin except on the advice of their physician, also to make sure they obtain the proper strength insulin when they purchase a new supply. They are advised to carry sugar with them at all times and to eat it if they feel that an insulin reaction is approaching. They are advised always to eat carbohydrates if they are going to engage in any exercises which might entail danger to themselves, such as swimming, motorcycle racing, etc. They are informed that they should always call both a physician and a surgeon simultaneously if they think they have a surgical condition of the abdomen. The physician might find a diabetic belly.

I never fail to tell diabetic patients that nobody ever died of diabetes, but only of its complications. This being true, it is up to them to follow the advice, diet, insulin dosage and exercise that have been worked out in the management of their case. They are also told that they should be re-checked at various times, and if they become sick from any cause they should consult a physician.

CASE REPORT

Robert F. is presented as a case of short duration in a young adult who soon became careless and ceased to follow the rules. His symptoms first began only five months ago. Treatment was instituted three months later when he first consulted a physician chiefly because of drowsiness and blurring of vision. He was employed as a driver at that time, and these were symptoms he no longer could ignore.

He was stabilized in the hospital, given instruction in the nature and care of his disease, and was dismissed July third on a weighed diet of 150 grams of carbohydrate, 85 grams of protein, and 120 grams of fat, with an insulin dosage of 10 units of regular with 25 units of protamine before breakfast, 6 units of regular at noon, and 6 units of regular before the evening meal. He failed to keep his appointment for check-up and was not heard from until ten days ago when brought to the hospital in a diabetic coma with a blood sugar of 724 milligrams and a carbon dioxide combining power of fifteen volumes per cent.

He had continued to take his insulin regularly but began to wander from his diet by overtreating his reactions. In a short time he was widely away from his diet and eating anything and everything. Undoubtedly he has had a valuable lesson, but the penalty has been rather severe. It is likely that he will not regain much of the tolerance he has lost and that his chances of remaining a mild diabetic are gone.

ABSTRACT

ENVELOPE METHOD OF TREATING BURNS AND WOUNDS DEVELOPED

An envelope method of treating burns and wounds, introduced by Surgeon Lieutenant Commander John Bunyan, of the British Navy, is described in the September 27 issue of *The Journal of the American Medical Association* by its regular London, England, correspondent. Commander Bunyan has developed a watertight silk envelope which is placed over the involved portion of the body.

"The envelope is provided with an inlet and an outlet, so that a lesion of any part may be irrigated by inserting a glass nozzle," the correspondent reports. "A simple adhesive seal is fixed to the proximal end of the envelope at the factory, so that by removing the protective gauze one produces a watertight seal by lightly pressing the adhesive to the limb and covering with an adhesive bandage."

Explaining the need for an improved method of treating burns and wounds, *The Journal* correspondent says that Commander Bunyan "holds that in the past success has been diminished by destructive antiseptics, by frequently changed dressings, painful to remove and destructive of adherent newly formed tissue, and by immobility and disuse of the part. A dressing which does not require changing is therefore desirable. It should be flexible, frictionless, bland to the tissues and transparent, so that progress may be observed. With the help of a manufacturer, envelopes of coated silk, shaped for different parts of the body, were produced. For cleansing Bunyan uses a solution of electrolytic sodium hypochlorite, because it is the least irritant.

"So far the treatment has been mainly used for burns. Applied to a first degree burn the solution immediately relieves pain, and covering with adhesive plaster is all that is necessary. Second and third degree burns are washed with the solution, the envelope is applied and the solution is run through the envelope through the outlet. This irrigation is repeated three times a day. Good results from this method are reported from the Middlesex, King's College and London hospitals. . . ."

It is pointed out that the great value of envelope irrigation is that in no case treated by it, with or without cleansing in the operating room, will anything more than mild infection occur.

This is the third article on Diabetes, Indiana's "Eleventh Great Killer."

MANAGEMENT OF DIABETES IN THE SENILE*

B. M. EDLAVITCH, M.D.
FORT WAYNE

It is logical to conclude a symposium such as this, on diabetes, with a discussion of diabetes in the senile. At the outset, however, one difficulty presents itself, i.e., the answer to the question as to just when senility begins. What criteria are to be generally accepted as indicative of the onset or existence of senility? So far as the patient is concerned I have yet to meet one who will admit that he has reached this unwelcome state. Senility is defined as "old age," but that definition is too vague. Aging is a relative process: some get old comparatively early in life, others have the innate capacity to ward off the ravages of old age until the very sunset of their lives. The question as to when senility does actually begin permits a justifiable difference of opinion. In this discussion the term senile, as it is defined in the dictionary, will be regarded as synonymous with old age, be that what it may.

Diabetes is not to be considered a manifestation of senility. It is by no means an old age disease. Its clinical manifestations appear most frequently in the two decades between forty and sixty. The incidence of the disease begins to go down in the sixth decade of life, hence the probability of being affected by it after the age of sixty decreases. When it begins late in life it is invariably, but not necessarily always, rather mild. There is no recognized factor in the aging process *per se* known to contribute in any way to the development of diabetes in the senile.

The most important aspect of diabetes in old age is in its relation to mortality from that disease. Diabetes of the older age-groups, i.e., the presenile and the senile, accounts for a substantial increase in the mortality from diabetes in this country. It is in the later decades of life that the increasing incidence of diabetic mortality is most apparent. Two factors may be thought of in the evolution of this striking change: (1) the average life-span of the population in general has been markedly increased, so that many more live long enough to become diabetics in the latter half of life; and (2) the diabetic lives much longer, long enough to reach the age when anyone, diabetic or non-diabetic, may become the victim of the degenerative changes concomitant with old age, particularly the cardiovascular group of diseases.

The one therapeutic agent that has made possible this spectacular change in the life expectancy of the diabetic is insulin. With insulin, when needed, not only may young diabetics enjoy uniformly good health and expect a life-span about equal to that of the non-diabetic, but middle-aged diabetics may look forward to old age with almost as much confidence as non-diabetics. When the diabetic has reached old age, no matter whether he developed his condition earlier or later in life, he will have learned how to manage and control his diabetes successfully, or he would not have lived that long. The fact that a diabetic of long standing does reach old age is *ipso facto* evidence that the disease has been adequately controlled and that he has played the major role in the routine of control. The knowledge the diabetic gained and the experience he acquired in keeping the disease under control when he was younger will enable him to continue to manage it successfully in his old age. Obviously, these cases of senile diabetes should present very little difficulty, if any, in the further control of the diabetes. The only modifications in their routine care that may be instituted, when necessary, are (1) to rearrange the diet to allow an adequate but not excessive protein intake, approximately ⅔ to 1 gram per kg. of body weight, with a carbohydrate intake not too high nor too low, and (2) the dose of insulin, when it is needed, be so carefully regulated that over-dosage, with resultant insulin shock, will be avoided. The hazard of insulin shock is to be feared more in the senile than in the younger. It must be emphasized, therefore, that in the senile diabetic insulin should be used not only judiciously but conservatively.

The management of diabetes, when its first manifestations occur in old age, is essentially no different from the treatment of diabetes when it starts earlier in life. The patient ought to be hospitalized, and a short stay in the hospital, if necessitated by circumstances, is better than none. The hyperglycemia, which must be demonstrated to make the diagnosis certain, can be reduced, if necessary, with insulin given cautiously as emphasized above. The diet is regulated according to the patient's requirement and tolerance and should be planned so as to strike the most favorable balance between carbohydrate and fat, allowing neither too much of the latter nor too little of the former. Protein in sufficient but not excessive quantity is allowed, the daily requirement, as already stated, being ⅔ to 1 gram per kg. of body weight, and the total caloric intake must be adequate but not excessive.

The weight of the diabetic must not be overlooked in the management of the disease. If his weight is too much below standard, sufficient food

* Read in a symposium on "Diabetes" before the Medical Section of the Indiana State Medical Association at Indianapolis, September 24, 1941.

intake to bring on the desired gain in weight is supplied, bearing in mind that substandard weight within ten per cent is desirable for the diabetic. If the patient is too heavy, as is more commonly the case, the diet must be planned with the two-fold objective in view of (1) controlling the disease, and (2) reducing the excess weight. Obesity is foremost among the causes known to induce the diabetic state. Joslin[1] expresses it aptly and tersely in these words: "Diabetes is largely a penalty of obesity." Reduction of the diabetic's excess weight is very helpful in bringing about a spontaneous increase in his carbohydrate tolerance. After substantial reduction of his weight, the diabetic is apt to find himself able to enjoy a more liberal diet without having glycosuria and hyperglycemia. Some of the allegedly "cured" cases of diabetes mellitus probably can be explained on such a basis.

The senile like the younger diabetic must be taught what and how much to eat and what not to eat, in other words, how to regulate his diet properly. He must be taught to test his urine for sugar. I have found it quite helpful to have him keep a written record of these tests and to bring this record with him each time he reports for his regular check-up. If he can keep himself sugar-free by proper diet, assuming that his diet is adequate as regards both quantity and variety of food, his case is mild and his diabetes can be controlled by diet alone. If, however, he cannot remain sugar-free on a proper maintenance diet, his case is severe and he will need insulin. Then he must be taught how to gauge the dose of insulin needed and the correct technic of giving it to himself. The possibility of a reaction from overdosage must be pointed out and its prevention insisted upon. Caution and conservatism in regulating the dose of insulin in the senile must be emphasized. Finally, he must be taught to recognize the symptoms of impending or actual insulin shock and how promptly to take care of this serious emergency.

In diabetics of advanced years cardiovascular disease is of major importance. As a cause of death among the general population cardiovascular disease has increased at such an alarming rate that it already ranks as the greatest killer of people in this country. Among diabetics this increase is even more striking. Arteriosclerosis is much more commonly present in diabetics of long duration than in non-diabetics, the figures given by some writers being actually astounding. Coronary sclerosis, that especially dangerous form of degenerative arterial disease, occurs several times oftener in diabetics than in other patients. Disturbances of cholesterol metabolism, one of the recognized harmful effects of incomplete control of diabetes leading to a sustained excess of cholesterol in the blood, is considered the factor chiefly responsible for the greater frequency of arteriosclerosis among diabetics. What other factor or factors may be operative in the genesis of this degenerative change can not be stated at present. Arteriosclerosis still is a disease of unknown etiology and is too vaguely understood. This disease, which "directly or indirectly kills the majority of persons past middle life"[2] presents to us the most serious challenge in all practical medicine. Its prevention and control is our greatest medical problem. In the absence of specific information as to the cause and nature of arteriosclerosis, measures intended to reduce the incidence thereof after the age of forty (the age when, according to Pitkin, "life begins") must be based on empirical rather than factual knowledge. Procedures of proved value in the prophylaxis of various infections and in the prevention of other types of disease might be applied intensively on the broadest possible basis for this specific purpose. In general, these measures are as follows: (1) Immunization very early in life against every specific infection known to be preventable; (2) removal of tonsils and adenoids early in life, whenever indicated; (3) regular supervision of teeth, to prevent the onset or detect early the presence of apical infection; (4) prevention of venereal disease; (5) prevention of constipation; (6) guarding against excess of food, liquor, and tobacco; (7) avoidance of persistent worry, anxiety, apprehension, or overwork, stressing mental no less than physical overwork. A systematic application in the first half of life of preventive medicine embodying these principles, and others which future experience will prove worth while, could be carried out in an attempt to prevent, or decrease, or at least delay this destructive disease of the latter half of life. How effective such a program of medical supervision and treatment might be for this specific purpose is a matter to be evaluated in the future.

CASE REPORT

It is a well known aphorism to those who treat diabetes mellitus that the diabetic of later adult life does not die of diabetes itself but generally of some secondary complication, vascular or infectious in nature. The case of Mrs. Ida F. is unusually interesting inasmuch as she has been fortunate enough to survive a series of recurrent infections when possessed not only of diabetes but also of a second constitutional disease, namely, pernicious anemia. Now sixty-seven years of age, she developed her diabetes eighteen years ago. She adhered to her diet and insulin only for about two years, then became lax in her diet and discontinued her insulin. Six years later there occurred an exacerbation of her diabetes; she was re-stabilized on weighed diet and insulin, and was more cooperative for a while.

Six years ago it was found that she had developed pernicious anemia, and she was started on liver extract orally and by injection. In September, 1936, which was one year later, she re-entered the hospital with an appendiceal abscess which was drained. Convalescence was slow but uneventful. Within the next five months,

[1] Joslin, E. P.: Treatment of Diabetes Mellitus, Lea & Febiger, Phila., 1935.

[2] Emerson, C. P.: A Textbook of Medicine, J. B. Lippincott Co., Phila., 1935.

between November, 1936, and May, 1937, she had four distinct recurrences of appendiceal abscess formation. She again entered the hospital in May, 1937, presenting her fifth acute flare-up. She was critically ill at that time, temperature of 104 degrees, and was profoundly anemic, with a red blood cell count of 1,300,000 and a 38 per cent hemoglobin. She received intensive liver extract therapy and two transfusions following which her general condition improved remarkably. It was three weeks after admission, when she was feeling much better and was a safer operative risk, that surgery was undertaken. There was found at that time an old sinus tract with an abscess cavity well in the abdominal wall. This was completely excised. A short stump of an appendix was amputated, the distal third of which had previously sloughed away.

At present she feels remarkably well, is quite active, and enjoys life to the fullest. She is now following a diet of 130 grams of carbohydrate, 70 grams of protein, and 120 grams of fat, and is taking an insulin dosage of 30 units of protamine before breakfast, no insulin at noon, and none before the evening meal. Her anemia is well controlled with extralin B in a dosage of two capsules after meals plus the injection of one cc. of reticulogen every two weeks.

SUMMARY

Diabetes in old age resolves itself into a two-fold problem, (1) diabetes, and (2) arteriosclerosis. Successful management of diabetes in the senile, therefore, implies control of both these clinical entities. Management of the diabetes entails no particular difficulty, if any at all. Treatment of arterial sclerosis at present is unsatisfactory and disappointing. The most effective treatment would be the prevention of either or both of these conditions. Joslin[1] feels that diabetes can largely be prevented by "avoidance of hereditary transmission," and he suggests the following: "Two diabetics should not marry and have children; a diabetic or child of a diabetic should not marry into a diabetic family." Since Cupid generally has no regard for the laws of hereditary transmission, the only effective method of excluding this hereditary tendency would be by legislation compelling pre-marital examination for diabetes, as is now required in our state, among others, for syphilis. When, if ever, such legislative action may be taken, no one can tell. Success in reducing the frequency of diabetes, if not completely preventing it, can be attained by eliminating the possibility of hereditary transmission and by avoiding obesity. No definite success, however, can be claimed at present in the prevention or control of arteriosclerosis because of insufficient essential knowledge regarding the cause and nature of this pathological condition. Whenever in the future we shall be successful not only in eliminating diabetes mellitus as a disease but also in preventing hardening of the arteries among our general population, then we shall no longer need to worry about the management of diabetes in the senile.

ESSENTIALS IN FRACTURE TREATMENT*

JOHN J. MOORHEAD, M.D.
NEW YORK CITY

In these days of surgical preparedness, this subject looms large in any medical program that aims to better fit us for the possible task ahead. Those of us who served with the American Expeditionary Force soon came to realize that military surgery revolved around two major casualties—wounds and fractures. That many were unprepared to deal with war injuries soon became apparent, and that situation was succinctly stated by Surgeon General Ireland when he said he had hundreds of excellent abdominal surgeons in the Medical Reserve Corps, but he had only a few who knew how to manage a compound comminuted fracture of the femur. The stimulus given to traumatic surgery by the Great War was carried home by thousands of doctors who had an opportunity to partake in the greatest traumatic surgery clinic the world had ever known. Hence, in peace time many of the military lessons learned abroad and at home were carried into civil practice to the end that the care and treatment of the injured assumed a dignity and importance hitherto unknown. Transportation accidents, industrial accidents, household accidents, accidents at play, and accidents of daily life provide a large quota of patients for the general practitioner as well as for surgeons in or out of hospitals.

If we try to reduce the fracture problem to the essential simplest terms, we begin by defining a fracture as a traumatic separation of bone, just as we define a wound as a traumatic separation of the integument or of underlying structures. We, therefore, define a fracture as a wound of bone, with or without a wound of the overlying tissues. Next we assert that there are only two kinds of fractures, and they are classified in respect to the type of bony separation.

Type I fracture, a first class fracture if you will, is one in which the fractured ends are not in contact; they are angulated, or they are overlapping and their edges are not end to end.

Type II fracture, a second class fracture if you will, is one in which the fractured ends are in contact; they are not overlapping even though they are angulated. Either of these may be a simple (closed) or a compound (open) fracture, and they

* Read before the General Meeting of the Indiana State Medical Association, Indianapolis, September 25, 1941.

may show any kind of alphabetical lineation, such as T or Y or many other combinations of letters not already appropriated by the Washington authorities.

This reduces the definition problem to very simple essential terms. Let us further simplify by saying that the treatment can be reduced to equal simplification by the statement that the management resolves itself solely into an attempt to convert a Type I, or first class fracture, into a Type II, or second class fracture, plus or minus the treatment of any associated wound or other injury. The Type I, or displaced group, requires reduction and retention. The Type II, or nondisplaced group, requires only retention; in other words, this means that we need only to splint in this variety if they are end-on by as little as fifty or sixty per cent. It is important to remember this, for there is a large group of fractures that do not need any setting at all.

Thus we have denominated in simple form just what we mean by the term *fracture* and just what our treatment aims to accomplish. We all know what we mean by a lacerated and by an incised wound. By analogy, then, a Type I fracture is like a lacerated wound; and a Type II fracture is like an incised wound. Let us further say that trauma sufficient to break a bone inevitably damages intervening tissue, and thus muscles, tendons, ligaments, vascular and neural vessels share in the pathology, and sometimes joint structures are also involved. Let us not forget this, for if we do we may have a splendid healing in the bone but, nevertheless, a failure because of contractures or other defects in adjacent structures that were coincidentally affected.

Another essential is to recognize that treatment methods are only two in number even though either of them may be magnified or complicated by a host of words or gadgets that often serve only to confuse and becloud the actual issue. These two procedures relate to reduction, or setting, and this can only be accomplished by (1) manual, and by (2) mechanical methods. As to these methods, we will say more later.

In the fracture lexicon there are four R's:

I. Recognition, or differential diagnosis.
II. Reduction, or setting.
III. Retention, or splinting.
IV. Rehabilitation, or functioning.

Of these, the second R, reduction, is the most important, for without reduction the fourth R, rehabilitation, is usually imperfect.

I—Recognition, or differential diagnosis, becomes easier if we will remember certain clinical essentials:—

(a) Type I, or first class fractures, usually produce enough deformity to be diagnosed by the sense of sight, except joint fractures. Type II, or second class fractures, are differentiated from sprain, contusion, hematoma, or tenosynovitis by local pain on pressure even though impaired function is slight. Local pain is just as important in traumatic as it is in abdominal surgery.

(b) Any joint injury associated with deformity and disability is usually a fracture and not a dislocation, the shoulder being the only exception. This clinical essential is applicable to approximately seventy-five per cent of joint injuries and ninety per cent of hip injuries.

(c) If the violence is adequate, suspect and expect an adequate effect in all the traumata. In other words, suspect fracture until suspicion is dissipated by the lapse of time or x-ray examination.

(d) Use the x-ray as an aid and not as a substitute for sight, touch, hearing and expenditure of grey matter. Do not forget the stethoscope as an accessory in fracture diagnosis. Our forefathers did a better diagnostic job in fractures than we do because eyes and ears and fingers suffered less from the atrophy of disuse.

(e) In old people we are on the alert to call hip injury a fracture; let us not forget that shoulder injuries in the same age group are also likely to be fractures and not contusions, sprains, or dislocations.

(f) In the wrist, as in other accessible joints, a sprain causes pressure-pain that is general and vocal, but in fracture the pain is local and focal. A fall on the outstretched hand usually produces a Colles' fracture; but if the hand is at the side or backward, suspect scaphoid fracture.

II—Reduction, or setting.

(a) Early reduction means easy reduction, plus less swelling and edema and almost always an absence of the so-called "secondary swelling."

(b) The first six hours of post-trauma in any injury is called by me the "Golden Period," and fractures or any other injury treated in that interval are prone to be free of complications.

(c) The order of procedure in reduction of the average fracture is:

I—Manual manipulation. Anesthesia should be used more frequently, and for this purpose nitrous oxide with or without ether is satisfactory. Avertin, given rectally, is often useful. My own preference is intravenous anesthesia, such as evipal or pentothal sodium, because these act promptly, last for a short time and there is little, if any, pre- or post-anesthesia struggle which might upset the alignment. Furthermore, there is no explosive danger if fluoroscopic control is desired. With the patient relaxed, the first step is to increase the original deformity so as to unlock the fragments and stretch taut muscles, for every fracture is corrected by "setting" the muscles and not by "setting" the bone. The second step is to make trac-

tion in the direction of the upper fragment, with whatever manipulation is appropriate. All these manual maneuvers are done slowly and steadily, not rapidly and jerkily.

II—Traction methods. Here we realize that our manual attempts, twice repeated, have failed, or our experience tells us they are inappropriate. Therefore, we proceed to apply (a) temporary or provisional, or (b) permanent or definitive traction, with or without suspension.

(a) Temporary or provisional traction means that when we or others first see the patient a traction splint of the Thomas type is applied, or we use a gaiter or a half-hitch around the ankle or wrist, or we fasten a clip to the heel or sole. If the patient is seen at his home and we are unprepared to make any definitive reduction, then we improvise one by passing a folded sheet or long towel around the ankle or wrist, and to this we attach a cord and a weight of five to ten pounds, pulling over the raised foot or side of the bed. We bend the pillowed knee or elbow and direct the pull in the direction of the upper fragment. By this method a very powerful traction force is applied that will probably correct over night any recent displacement, and certainly will prevent any further malalignment.

(b) Permanent, or definitive traction is usually applied by adhesive straps or glued tape, and the cords leading from these are attached to adequate weights. To be most effective, these traction devices should be passed along the whole length of the limb, and not end at the fracture level as is frequently advised.

There are, however, many fractures in which strap traction is wholly ineffective, and our next resort is skeletal traction. This is an excellent device and is a valuable substitute for open operation, especially in the humerus, the femur and the tibia. As a matter of clinical experience, skeletal traction and Russell strap traction have greatly reduced the necessity for operation in fractures of the femur, and to a lesser extent in fractures of the humerus and tibia. For fractures of the humerus, the traction wire is usually passed across the base of the olecranon. For fractures of the femur, the wire transfixes the area about two inches above the inner (medial) condyle, or in some cases is passed just below the tibial tubercle. For fractures of the tibia, this transosseous wire passes through the body of the os calcis, or sometimes traverses both malleoli. In some complicated cases two sets of wires are passed, so-called double transfixion, and these are included in the plaster dressing and are not removed until fixation of the fragments is quite secure.

III.—Retention, or splinting. Having satisfactorily reduced or set the fracture by manual or mechanical means, we now seek to retain this position until healing is assured. If we are able to supply splintage at once, then we have a choice as to the material to be used. Practically speaking, we use basswood, padded splints, plaster of Paris moulded splints or circular casings or casts. There are certain essentials that we keep in mind, and some of these are:

(a) The splint should fit the patient, not the patient fit the splint. That is why shaped metal, or other types of splints, are not very practicable even though they may look nice in the catalog and stay shiny on the top shelf or bottom drawer until they rust.

(b) In fresh fractures and where there is liability of swelling we must be sure to leave space for circulation; after all, we do not often need a tourniquet in simple (closed) fractures. Hence, if we hold moulded or other two-piece splints in place by adhesive, we pass it spirally and not circularly.

(c) In children, beware of the use of plaster casings or any other type of occlusive splintage. This applies especially to fractures near the elbow where pressure may obstruct the blood supply sufficiently to cause the dreaded Volkmann's ischemic contracture.

(d) It does no harm to split the circular plaster casing along the front or at the sides, and this is often a wise precaution unless the fracture has passed the swelling stage.

(e) We must be careful of pressure over such bony knobs as the ulnar styloid, the olecranon and humeral condyles in the upper limb, and in the lower limb the iliac spine, the condyles of the femur, the head of the fibula, the malleolar prominences, and the summit of the os calcis.

(f) Moulded splints of plaster can often be used if we apply three slabs instead of two, for example in leg fractures. Here, a long gutter splint passes down the back of the leg, and one slab on each side of the leg. This plan practically encloses the limb, but also provides three slits for circulation and readily permits removal of either or both sides for inspection. This same three-piece or two-piece plan can also be used in the upper extremity.

(g) There is now a vogue for the so-called unpadded splints, but my own experience does not lead me to give approval to this proposal. I cannot see any disadvantage in a thin layer of stockinette or other type of protective.

(h) In extensive coverage by plaster, as in spicas or spinal jackets, it is a good plan to trephine the coverage here and there to provide ventilation.

The essential question also arises as to when

traction is to be removed and splintage applied. Some cases can be carried throughout in traction, but in most instances the day arrives when we can safely make our patient ambulatory in plaster splintage with a walking attachment, or even with a metal brace.

In healing, all fractures pass through two stages. One of these I call the "lead-pipe" stage, when union is fairly solid and slipping is unlikely; this is usually after the 16th day. The other stage I call the "iron-pipe" stage, when union is clinically and radiographically solid. At the "lead-pipe" stage plaster can usually be substituted for traction, and at the "iron-pipe" stage a part of the splintage can be removed. The addition of metal sidepieces to a plaster casing often allows us to permit walking in a few days, especially if we take time to show the patient how to use a chair as a pusher for support before trusting to crutches.

We remove the splintage gradually, and in most cases the anterior half is discarded first, and, when feasible, the posterior half is also removed. Thereafter we may apply a mesh bandage to the upper extremity for a time and a walking brace to the lower extremity. The patient should wear a section of the discarded splint at night, for turning in bed may cause havoc for a sleeping patient.

There are a number of plaster of Paris substitutes on the market, and, among others, I have been experimenting with a plastic material but the priority rationers have stopped my supply before this product could be placed on order. The Castex type of circular dressing has some merit, but it is rather costly and difficult to use. Starch, or a light plaster coverage, especially if coated with shellac or a dainty tint of Duco, will suit even the most fastidious of Main Street or Broadway.

Operations in fractures.

Fracture of the patella, the olecranon, some irreducible fractures of the humerus, forearm, and tibia often demand operation. However, of these fractures the patella and the olecranon are the only two in which operation is regarded as almost essential.

Skeletal traction obviates the necessity for open operation so often that operative repair is actually an infrequent essential except in the two zones named. There are some surgeons who almost routinely advocate plating; however, such a plan appears to me to be needlessly radical because other less hazardous methods are so uniformly successful.

If operation is performed, it is often sufficient to securely enmesh the fragments by what I call "bone notching," or, in some cases, by fashioning a long spike of one fragment and placing it in the medulla of the other fragment—this I call "bone steepling." The anchorage is made more secure by sutures of gut, or Allegheny wire of small calibre. This method is excellent in the forearm and humerus. The humerus appears to withstand wiring or plating even better than the femur; however, any open operation in the latter is often a very substantial task, especially if overlapping exists. Let us not forget that postoperative infection results in osteomyelitis even though the infection is brought under control in so far as the soft parts are concerned.

Since vitallium has been introduced, there is reawakened interest for operative repair on the presumption that safety is added by using this material. This is a fallacy, for bone is not infection-resistant but, on the contrary, does not respond well to the trauma added by any type of operation.

Pinning for fractured hips is the greatest single advance in fracture treatment for many decades, and we all owe a debt of gratitude to Smith-Petersen for his advocacy of this method. Hitherto, older people with this injury were almost doomed and often neglected; but now they are in the competitive class, and everybody wants to stick a pin into them, thereby pinning a rose on themselves!

Compound, or open fractures.

Of these fractures there are clinically three degrees, viz.,

(a) fracture with a punctured wound, (b) with a lacerated wound, and (c) with a crushing wound.

(a) *Punctured wound degree.* Here, after cleansing, a simple coverage with a sterile dressing is usually adequate whether or not the open tract is injected with a mixture of 15 grains (1 gram) of a sulfonamide in sterile mineral oil or melted vaseline. This applies especially to the group in which the break in the skin is caused from within (as from a spicule of broken bone) rather than to the group caused from without (as from direct or penetrating violence). In all fractures occurring in thick muscled areas, in the vicinity of a manured terrain, in gunshot injuries, from unknown origin, or in suspicious cases, it is wise to give a prophylactic dose of tetanus and gas gangrene antiserum. These should be administered slowly, or by testing for anaphylaxis by injecting a drop intradermally, especially in children or others who may be serum-susceptible.

(b) *Lacerated wound degree.* Here, debridement is needed after copious soap and water cleansing has been done. Antiseptics are no substitute and in many cases are no more adaptable than rouge over dirty cheeks or lip stick on unkissable lips. Gay colored antiseptics daubed into a wound is chromatic and not traumatic surgery. Let the excision in debridement be guided by three essential criteria: Excise until (1) healthy tissue is reached; (2) bleeding occurs; and (3) muscle contracts. This excision may be only 1/32 inch, or it may be much more; but it should be efficient and sufficient, and not sacrificial. After the af-

fected area is thus rendered surgically clean, we have a choice of three procedures:

(1) *Primary, or immediate suture.* This is to be done only in the exceptional case and should not be attempted after the "Golden Period" of six hours post-trauma.

(2) *Secondary, or delayed or primo-secondary suture.* This is the safest suture and is my personal preference. The sutures are placed (interrupted, non-absorbable, through-and-through type) and left untied until the third or fourth day, and in the interval the open wound is covered by a sulfonamide pack of gauze, composed of 15 grains (1 gram) of sulfonamide to one ounce (30 grams) of sterile mineral oil or vaseline. If all goes well, the pack is removed on the third or fourth day and the sutures are tied. At times liberating incisions in a healthy margin contiguous to the debrided region are also necessary, and these sutures are then likewise tied.

(3) *Debridement and packing.* No sutures are placed and we rely on healing by granulation. The wound is packed with a vaseline paste consisting of sulfonamide, 15 grains (1 gram) to each ounce of vaseline. This is replaced if odor or other incidents demand, but otherwise it is undisturbed even for weeks. A circular plaster casing is applied, with or without a window.

(c) *Crushing wound degree.* After debridement we apply the packing treatment just named unless amputation is deemed advisable. If so, the so-called "chop" or "guillotine" method is usually preferable to any shaped flap or other amputation plastic.

The systemic treatment for shock or hemorrhage is, of course, indicated when occasion demands, and whole blood or plasma are the remedies of greatest value. Likewise, in suspicious or developed cases we seek to avoid septic complications by giving an appropriate sulfonamide daily as long as it may be needed.

Infected fractures are essentially a problem in osteomyelitis, and indeed every compound (open) fracture is a potential osteomyelitis. As a clinical essential we must not forget that *every wound not made with surgical intent is already infected and should be so regarded.*

If then we are dealing with an infected fracture we have two main choices of attack:

(1) *Acute forms* are the early group, and these are treated like a contaminated wound, namely, by wet dressings of a mild antiseptic such as iodine-saline solution, commonly called by us "I.S. Solution." This is composed of Tr. Iodine (7%) one dram, and saline solution, one pint. I like to apply this as a hot wet dressing, and it is kept wet by placing perforated tubing between the gauze meshes and by attaching a control tube to a reservoir of the solution. It is kept warm in the reservoir or by placing an electric bulb over the dressing. My belief is that hot dressings focalize the infection, and this will be aided by oral administration of an appropriate sulfonamide. Usually an anti-streptococcus derivative is given, inasmuch as this organism so often inhabits infected bone, either alone or in combination with staphylococci, thus providing a so-called "mixed infection." As an alternative, a sulfonamide in mineral oil may be used on gauze, or a chlorine derivative may be introduced by the Carrell-Dakin technic or modifications thereof. Incision and drainage are never used in any infected area, the hand included, unless there is (a) local swelling; (b) local fluctuation; and (c) local induration and tenderness. To incise for red streaks or diffuse redness, or for adenitis, will usually result in a spread of infection and perhaps even occasion a blood stream invasion, healthy tissue becoming inoculated by our operating scalpel.

(2) *Subacute and chronic forms* represent established osteomyelitis. Here the packing treatment, already mentioned, is indicated. However, let us remember the old surgical axiom "Once an osteomyelitis, always an osteomyelitis," and thus we will not delude ourselves into the belief that any of the so-called newer methods are sovereign remedies against this scourge. It acts like cancer in that it may remain quiescent or even has apparently disappeared for a much longer time than the standard "five-year cure" period. I have two patients who had outbreaks after thirty-nine and forty-one years, respectively. In one patient I amputated a thigh after fifty years of recurrent "flares" of this unconquered foe. The British, during World War I, packed their infected fractures with "bipp," the name being derived from the initials of the ingredients, namely, bismuth, iodoform and petrolatum paste. The bismuth and iodoform proved irritating and sometimes toxic, hence were later abandoned, leaving only the petrolatum or vaseline. This adaptation is what is now currently known as the "Orr treatment," and there is no question that the combination of debridement, packing and plaster encasement aids in recovery. The plaster coverage should be complete and windowless, and the dressing is only to be replaced if complications arise, or if the odorous discharge reaches the unbearable stage. In my prac-

tice, operations for osteomyelitis are performed for only two purposes, viz., for the removal of pus and for the removal of a sequestrum. Curetting, implanting muscle or other tissue, cauterizing by acids or other agencies, and flap or similar plastics are usually valueless. The maggot treatment is to me like breeding rats to destroy the garbage of a city, and certainly it is a far cry from aseptic surgery—almost reverting to the treatment of wounds with cobwebs or dung.

X-rays in fractures.

There should be an order of procedure in examining a suspected fracture, and the essentials are:

(1) History: Direct or indirect violence; patient conscious or unconscious; bleeding; any paralysis, motor or sensory.
(2) Inspection: The "3 D's," namely, deformity, discoloration and disability.
(3) Palpation: Local or general pain; false motion; bony irregularity; or crepitus. All of these are sought for gently, as if located on your own leg or arm.
(4) Auscultation: Valuable + palpation + percussion in the skull, scapula, clavicle and long bones because of augmenting crepitus.
(5) Motion: Active and passive.
(6) Measurement: Longer, shorter or broader.
(7) X-ray: In at least two axes, and in joints often in four axes, using the sound side for comparison.

X-ray time-table. (1) After the clinical examination, (2) after the reduction, (3) after a lapse of 10 to 16 days, earlier if the patient says "It feels queer," "I felt something slip," or "It hurts in one place," (do not disregard these complaints, for after all the patient may be right. Incidentally, we must remember that malpractice suits in fracture cases are at the top of the list.) and (4) when the part is bared to apply new splintage, the fourth week or after.

The foregoing are the "express stops" in our time-table and any further x-ray demands are at the option of the attending doctor and represent the less important "local stops." The final x-ray is taken at the time the patient leaves our care.

Prepare the patient, the family or other interested parties, for what the x-ray may portray, and explain in advance that perfect coaptation of fragments is rarely possible even in an open operation nor is it necessary for function if preservation of the general contour or carrying angle has been attained. Function is the end in view, and form as delineated on the x-ray film is only secondary.

In many places, especially joints, the ordinary antero-postero and lateral films will miss a fracture; hence, order what I call an "all around the clock" set of films. This means the customary VI to XII, the III to IX, also the 1:30 to 7:30, and 4:30 to 10:30. If you are a sailor, "box the compass" if you want to actually sail the whole course rather than sailing only N and S or E and W on your radiologic chart.

Remember also that after a few days certain hitherto unseen fissures may appear, especially in long oblique fractures, for in my opinion practically all of the oblique group are three-piece rather than two-piece cleavages.

It is wise always to retain copies or tracings of your films if for any reason the originals pass out of your keeping. As a matter of fact, any accident may mean some sort of medico-legal complication, and your history and your x-ray and other findings should be a matter of accurate record so that you will have sufficient data if called upon to produce it at any future time.

The leave-them-alone group. There are many of these in the Type II or non-displaced group. They often need only splintage and a hands-off policy, but naturally, if the originating violence has not displaced their contacted edges, only misguided efforts on our part will cause displacement. If they are end-on, as stated, by fifty to sixty per cent, that is enough if the general contour and carrying angle are retained. However, in joint fractures more accurate adjustment is needed than in shaft fractures, notably in children, so that epiphyseal growth centres are not compromised. Shaft fractures in children will compensate for shortening and angulation in a most surprising manner, and in the femur an overlap of two inches may be wholly overcome by compensatory growth. We, therefore, very rarely operate on shaft fractures in those under seventeen years of age, and when possible also avoid operative interference for joint fractures in the same age groups.

Nonunion and malunion. The main cause of nonunion is noncoaptation of fragments because of imperfect reduction or interposition of fascia, muscle or bony sequestrae. Too loose or too tight splintage is another cause. I do not believe systemic causes play any great role, for many of the enfeebled heal much better than the robust. Syphilis is not a deterrent to union, nor is diabetes or the metabolic diseases. Arteriosclerotics do not heal well, but arthritics usually put out an abundance of Nature's cement that we call callus. Let us remember that bone is essentially only soft parts with enough calcium to provide shape and support.

Nonunion is an elastic term, but personally I declare it to exist if a period of fifty per cent has elapsed in excess of the average healing period for the bone in question. If the shaft of the broken radius should be healed solid in six weeks, but has not, then I allow fifty per cent more time, or three weeks plus six weeks equals nine weeks, before asserting failure of union. Lack of calcium and phosphorous, endocrine and vitamin deficiency, do not seem to stand in causal relationship. So far as I know there is no valid reason why a broken

leg in one patient heals promptly, and yet in another patient with identical pathology and treatment it fails to unite. We all have patients who throw out callus promptly and abundantly, and I have been blood-grouping these and have twice given their blood to patients who would not unite even after I had operated for malunion. The results were so good, especially in one case, that I can recommend this to you in any case of delayed or faulty callus production. It is an example of taking from the "haves" and giving to the "have nots," and technically it appears to supply the X or unknown callus-making elements to those who for reasons unknown do not have it. Bone-drilling for nonunion is an excellent substitute for bone-grafting and sometimes acts almost magically. It is ascribed to Beck, of Kiel, Germany, but as a matter of fact the procedure was described in 1846 by Brainard, of Chicago, who then published a splendid description of the technic and also devised a special instrument called Brainard's perforator.

Missed diagnosis. We probably fail most often in making a correct diagnosis in fracture of the spine, and this is because we are intent on other more manifest lesions; we have not made lateral x-rays, we do not properly interpret complaints of pain in the back, or we expect extreme violence to be the causative element. It is a clinical fact that severe violence is not necessary, inasmuch as sharp flexion with more or less rotation is a competent factor; this incident of the occurrence may be forgotten by the patient if some other more manifest effect occurs.

Fracture of the hip is less often missed now than heretofore, for we are very suspicious if our patient is unable to lift the limb with the knee in a straight position. This may in fact be the only sign, and often x-ray corroboration is a great surprise. The majority of so-called "severe sprains" of the shoulder, wrist and ankle prove to be fractures.

"Baseball fingers" are almost invariably fractures into the joint, and nearly all of these heal with deformity because cartilage tends to repair irregularly. As witnesses of permanent cartilage defects, I name the boxer's ear, the nasal septum, the intervertebral discs, the knee meniscii, and the fibrocartilage involved in some Colles' fractures. If the carpal scaphoid proves to be broken, we may suspect a sprain at the base of the thumb, especially if we do not x-ray "around the clock" with the joint tilted. The base of the fifth metatarsal fracture often acts at first like a contusion or sprain until x-ray proves the actual reality.

Skull, spine, pelvis and some other fractures have purposely not been mentioned for their inclusion would take us too far afield. However, I cannot fail to mention the latest favorite diagnosis to account for persisting back pain, namely, the so-called "disc syndrome." There is no question as to this entity, but it is very rare and trauma is only one of the producing factors.

Summary.

(1) A fracture is essentially a wound of bone.

(2) There are essentially only two groups of fractures: Type I with separated fragments, and Type II with unseparated fragments.

(3) Reduction and rehabilitation are the two essentials of treatment.

(4) Skeletal traction is an effective substitute for open operation.

(5) Operative repair of fractures is only essential when other methods are unavailing.

(6) Infected fractures are essentially evidences of osteomyelitis, and "once an osteomyelitis, always an osteomyelitis" is just as axiomatic today as heretofore.

(7) Missed diagnoses essentially depend upon failure to explore suggestive symptoms and to verify or disprove them by "around the clock" x-ray films.

(8) Safety, simplicity, and security are the 3 S's essential in fracture management.

THE TEN COMMANDMENTS OF TRAUMATIC SURGERY

I. Thou shalt have no god of trauma other than the safety and welfare of thy patient.

II. Thou shalt not bow down to any graven image except knowledge and experience.

III. Thou shalt not take in vain the name of those who diligently seek the welfare of thy patient.

IV. Remember to give thy patient rest on the days following injury.

V. Honor the parents of traumatic surgery who gave birth to and practiced this branch of general surgery.

VI. Thou shalt not kill thy patient by neglect nor by the practice of alien doctrines.

VII. Thou shalt not commit adultery by performing clinical crimes which may conceive such offspring as infection, deformity or disability.

VIII. Thou shalt not steal the ideas of thy brother practitioners without due recognition.

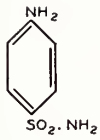
IX. Thou shalt not bear false witness against thy brother practitioners who probably did just as you would have done.

X. Thou shalt not covet thy fellow practitioner's skill, his equipment, his hospital, nor anything else that is his, except his good reputation, his knowledge and his experience.

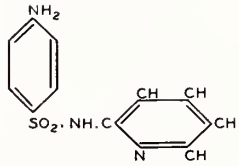
SULFADIAZINE: A NEW CHEMOTHERAPEUTIC AGENT*

H. M. POWELL, Sc.D.
K. K. CHEN, PH.D., M.D.
INDIANAPOLIS

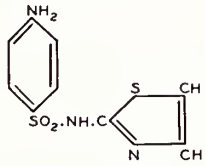
Sulfadiazine, or chemically 2-sulfanilamidopyrimidine as shown in formula [IV], was first synthesized by Roblin, Williams, Winnek, and English.[1]



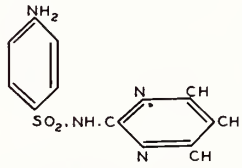
SULFANILAMIDE [I]



SULFAPYRIDINE [II]



SULFATHIAZOLE [III]



SULFADIAZINE [IV]

A comprehensive report on its chemotherapeutic action and toxicity has been published by Feinstone, Williams, Wolff, Huntington, and Crossley.[2] Their results indicate that the compound has a high activity in experimental infections of mice due to pneumococcus, streptococcus, staphylococcus, and Friedlander's bacillus B. Long[3] showed that sulfadiazine is somewhat less effective than sulfanilamide against streptococcic infection in mice, and slightly less effective than sulfathiazole and sulfapyridine against pneumococcic infection, type I, in mice. Sulfadiazine proved to be superior to other sulfonamides now in use in experimental infections of Clostridium welchii and Clostridium septique. Klinefelter[4] stated that sulfadiazine was the most effective of the sulfonamide compounds in treating experimental colon bacillus infections in mice. Neter[5] demonstrated that sulfadiazine might delay the secondary growth of S. dysenteriae (Shiga) and E. coli in broth containing bacteriophage.

Results of *in vitro* experiments depend much upon the medium employed, for the latter has a selective inhibition of sulfonamide drugs, as disclosed by Strauss and Finland.[6] For example, sulfadiazine in blood broth is less active than sulfathiazole against type III pneumococcus, but in liver infusion medium the two drugs appear equally effective. The same authors[7] detected bacteriostatic and bactericidal action of both sulfadiazine and sulfathiazole on a group of gram-negative bacteria: E. coli, Shigella paradysenteriae (Flexner), S. cholerae suis (suipestifer), S. enteritides, S. schottmülleri, S. typhi murium, S. paratyphi, and Klebsiella pneumoniae, type A. Spink and Jermsta,[8] using a synthetic medium, proved that sulfadiazine and sulfathiazole have a greater bacteriostatic action on Staphylococcus albus than sulfanilamide and sulfapyridine, and that the antagonistic effect of *p*-aminobenzoic acid is greater toward sulfanilamide and sulfapyridine than toward sulfadiazine and sulfathiazole.

According to Feinstone and his associates,[2] the drug has a relatively lower acute toxicity because animals (mice) can tolerate a higher blood concentration of sulfadiazine than they can of sulfathiazole and sulfapyridine. By repeated administration sulfadiazine is less apt to cause tissue damage in monkeys than sulfathiazole or sulfapyridine. Their data also show that sulfadiazine, injected or by mouth, is readily absorbed in mice, rabbits, dogs, and monkeys. There is some suggestion that less acetylation takes place in the animal body with sulfadiazine than with sulfapyridine. Cooper, Gross, and Lewis,[9] on the other hand, stated that sulfadiazine produced urolithiasis medicamentosa

* From the Lilly Research Laboratories, Eli Lilly and Company, Indianapolis.

[1] Roblin, R. O. Jr.; Williams, J. H.; Winnek, P. S., and English, J. P.: Some Sulfanilamido Heterocycles, *J. Am. Chem. Soc.*, **62**:2002, 1940.

[2] Feinstone, W. H.; Williams, R. D.; Wolff, R. T.; Huntington, E., and Crossley, M. L.: Toxicity, Absorption and Chemotherapeutic Activity of 2-Sulfanilamidopyrimidine (Sulfadiazine), *J. Hopkins Hosp. Bull.*, **67**: 427, 1940.

[3] Long, P. H.: Sulfadiazine, the 2-Sulfanilamidopyrimidine Analogue of Sulfanilamide, *J.A.M.A.* **116**:2399 1941.

[4] Klinefelter, H. F.: Sulfadiazine: Effect on *E. coli* Infections in Mice, *Proc. Soc. Exper. Biol. and Med.* **46**:591, 1941.

[5] Neter, E.: Inhibitory Effect of Sulfamido Compounds upon Development and Growth of Phage-resistant Bacteria, *Proc. Soc. Exper. Biol. & Med.* **47**:20, 1941.

[6] Strauss, E. and Finland, M.: Selective Inhibition of Sulfonamide Drugs by Various Media, *Proc. Soc. Biol. & Med.* **47**:428, 1941.

[7] Strauss, E. and Finland, M.: Bacteriostatic and Bactericidal Action of Sulfadiazine *in vitro* on Gram-negative Bacteria, *Proc. Soc. Exper. Biol. & Med.* **47**:432, 1941.

[8] Spink, W. W. and Jermsta, J.: Effect of Sulfonamide Compounds upon Growth of Staphylococci in Presence and Absence of *P*-Aminobenzoic Acid, *Proc. Soc. Exper. Biol. & Med.* **47**:395, 1941.

[9] Cooper, F. B.; Gross, P., and Lewis, M.: Chemotherapeutic Evaluation of Some N^1- and N^4-Heterocyclic Derivatives of Sulfanilamide, *Proc. Soc. Exper. Biol. & Med.* **47**:508, 1941.

capable of causing death by acute suppression of urine in mice and rats. Butler, Dickison, Govier, Greer, and Lamson[10] concluded that feeding of sulfadiazine to mice for 2½ days reduced the dose of pentobarbital required for anesthesia. No adequate explanation for such a synergism is as yet available.

The absorption and excretion of sulfadiazine in man following single or repeated doses have been investigated by Plummer and Ensworth,[11] Reinhold, Flippin, Schwartz, and Domm,[12] Peterson, Strauss, Taylor, and Finland,[13] and Sadusk and Tredway.[14] Although opinions are not uniformly the same among different workers, it is apparent from the conclusions of the majority that sulfadiazine is promptly absorbed, less easily acetylated, and more slowly excreted. The blood concentration of the free form is comparatively higher than that of sulfapyridine and sulfathiazole. The level of sulfadiazine in the cerebrospinal fluid is higher than that of sulfathiazole when the same doses are administered.

Sulfadiazine has been subjected to clinical trials. In the treatment of six hundred and seven cases of pneumococcic pneumonia, Plummer, Liebmann, Solomon, Kammerer, Kalkstein, and Ensworth[15] found it to be comparable to sulfapyridine, sulfathiazole, or serum. Similarly, Flippin, Rose, Schwartz, and Domm[16] considered sulfadiazine to lower the temperature in pneumonia slightly more rapidly than sulfathiazole. Long[3] in a preliminary report believed that sulfadiazine was slightly less effective than sulfapyridine or sulfathiazole in the treatment of pneumococcic pneumonia. The list of diseases which readily yielded to sulfadiazine therapy, in the experience of Finland, Strauss, and Peterson,[17] consisted of pneumococcic, staphylococcic, and streptococcic pneumonias; meningococcic infections; acute infections of the upper respiratory tract including sinusitis; erysipelas; acute infections of the urinary tract, particularly those associated with Escherichia coli bacilluria, and acute gonorrheal arthritis. Dingle, Thomas, and Morton[18] successfully employed sulfadiazine in the treatment of thirteen cases of meningococcic meningitis, with one death.

Doses as employed by different clinicians varied. In general it may be said that by mouth the initial dose of two to four grams sulfadiazine and subsequent doses of one gram each repeated every four to six hours should be considered adequate. In desperate cases in which therapy must be instituted immediately, the soluble sodium salt of sulfadiazine in a five per cent solution may be injected intravenously in the amount of two to three grams. Untoward symptoms such as nausea and vomiting,[12,17] skin rash,[11,12,13,16,17] hematuria,[16,17] leucopenia,[16,17] and headache and slight dizziness[17] occasionally occur in patients treated with sulfadiazine, but they are much less frequent than with sulfapyridine or sulfathiazole.

The above account summarizes the data on sulfadiazine to date. In our laboratory various experiments were conducted in different animals. The results appear to strengthen the pharmacologic background of sulfadiazine and will facilitate clinicians in making further extensive investigations. The material we studied melted at 256-257° C. It is only slightly soluble in water; concentrations of 1:20,000 and 1:10,000 made on the water bath remained clear at room temperature, but crystals settled out in a solution of 1:5,000. One gram of sulfanilamide is molecularly equivalent to 1.4533 grams of sulfadiazine, 1.4475 grams of sulfapyridine, and 1.4826 grams of sulfathiazole. The sodium salt prepared according to the procedure of Roblin and his associates is easily soluble in water.

1. Chemotherapeutic Action

Albino mice weighing approximately twenty grams were infected with the cultures of types I, II, III, and III CHA "fast" strain pneumococci, Streptococcus hemolyticus "C-203," and Staphylococcus aureus "679." We are indebted, respectively, to Dr. L. H. Schmidt for a supply of the CHA "fast" strain of type III Pneumococcus, and to Dr. W. W. G. Maclachlin, University of Pittsburgh, for a supply of Staphylococcus aureus "679." As in previous studies[19,20], sixteen-hour

[10] Butler, T. C.; Dickison, H. L.; Govier, W. M.; Greer, C. M., and Lamson, P. D.: The Effect of Sulfanilamide and Some of Its Derivatives on the Reaction of Mice to Anesthetics, *J. Pharmacol. & Exper. Therap.* **72**:298, 1941.

[11] Plummer, N., and Ensworth, H. K.: Absorption and Excretion of Sulfadiazine, *Proc. Soc. Exper. Biol. & Med.* **45**:734, 1940.

[12] Reinhold, J. G.; Flippin, H. F.; Schwartz, L., and Domm, A. H.: The Absorption, Distribution, and Excretion of 2-Sulfanilamido Pyrimidine (Sulfapyrimidine, Sulfadiazine) in Man, *Am. J. Med. Sci.* **201**:106, 1941.

[13] Peterson, O. L.; Strauss, E.; Taylor, F. H. L., and Finland, M.: Absorption, Excretion and Distribution o Sulfadiazine (2-Sulfanilamido-Pyrimidine), *Am. J. Med. Sci.*, **201**:357, 1941.

[14] Sadusk, J. F. Jr. and Tredway, J. B.: Observations on the Absorption, Excretion, Diffusion, and Acetylation of Sulfadiazine in Man, *Yale J. Biol. & Med.* **13**:539, 1941.

[15] Plummer, N.; Liebmann, J.; Solomon, S.; Kammerer, W. H.; Kalkstein, M., and Ensworth, H. K.: Chemotherapy Versus Combined Chemotherapy and Serum, *J.A.M.A.*, **116**:2366, 1941.

[16] Flippin, H. F.; Rose, S. B.; Schwartz, L., and Domm, A. H.: Sulfadiazine and Sulfathiazole in the Treatment of Pneumococcic Pneumonia, *Am. J. Med. Sci.* **201**:585, 1941.

[17] Finland, M.; Strauss, E., and Peterson, O. L.: Sulfadiazine. Therapeutic Evaluation and Toxic Effects on Four Hundred and Forty-six Patients, *J.A.M.A*, **116**: 2641, 1941.

[18] Dingle, J. H.; Thomas, L., and Morton, A. R: Treatment of Meningococcic Meningitis and Meningococcemia with Sulfadiazine, *J.A.M.A.*, **116**:2666, 1941.

[19] Powell, H. M. and Chen, K. K.: The Action of Sulfapyridine (2-Sulfanilyl Aminopyridine), *J. Pharmacol. & Exper. Therap.* **67**:79, 1939.

[20] Powell, H. M. and Chen, K. K.: Sodium Sulfapyridine: Its Chemotherapeutic Action and Toxicity, *J. Ind. State Med. Assn.* **33**:503, 1940.

cultures of pneumococci and streptococci were employed, and an amount of 10^{-4} cc. diluted with broth to 0.5 cc. was injected into each mouse intraperitoneally. Regarding staphylococci, six-hour cultures of agar slants were suspended in a five per cent gastric mucin solution, the infecting doses being 10^{-5} and 10^{-4} cc. diluted to 1 cc. given also by intraperitoneal injection. Control mice for virulence received a wide range of culture doses, varying from 10^{-9} to 10^{-4} cc. In addition to the experiments with the aforementioned pathogenic organisms, a series of half-grown Swiss mice weighing about ten grams was subjected to intranasal instillation of ground lung suspensions of type A influenza virus.

Groups of twenty, sometimes ten, mice infected with each organism were treated with sulfadiazine by oral administration, and at the same time compared with similar groups treated with sulfapyridine, sulfathiazole, or sulfanilamide. In order to evaluate the new product precisely, each corresponding set of tests on different sulfonamides was simultaneously carried out—with the same specimen of bacterial culture in the same lot of mice. To combat pneumococcic or staphylococcic infection, a total of five doses of 20, 30, or 40 milligrams of each drug per mouse, each suspended in 0.5 cc. of a fifteen per cent acacia solution, was administered according to the following schedule: the first dose at one hour after inoculation, followed by the second in eight hours, the third and the fourth in the morning and afternoon of the next day, and the fifth on the third day. The streptococcic infection required only two doses of five milligrams each, irrespective of the body weight, given at one and five hours after infection. All animals were observed for fourteen days.

Results clearly indicate that five 20-, 30-, or 40-mg. doses of sulfadiazine *per os* prolonged the lives of all animals, and enabled a portion of them (5-45%) to survive indefinitely the culture dose of 10^{-4} cc of pneumococci. Control mice on infecting doses of 10^{-7}, 10^{-6}, and 10^{-5} cc. all died, and a half of each group succumbed to 10^{-8} cc. Compared with sulfapyridine and sulfathiazole, weight for weight, sulfadiazine has a closely similar potency. Its efficacy in type III pneumococcic infection is particularly impressive, and it appears superior to the other two drugs as illustrated in Figure 1. Whether or not this has any clinical significance, further experience will tell. So far, Flippin and his associates[16] have successfully treated fifteen cases of type III pneumococcic pneumonia with four deaths, and Finland and his colleagues[17], thirty-three cases with six deaths. No curative effect, however, was observed with any drug when the CHA "fast" strain of type III pneumococci was employed as the infecting agent in mice.

Both sulfadiazine and sulfapyridine saved the lives of one-half of ten mice infected with 10^{-5} cc. of Staphylococcus culture, but only one out of ten

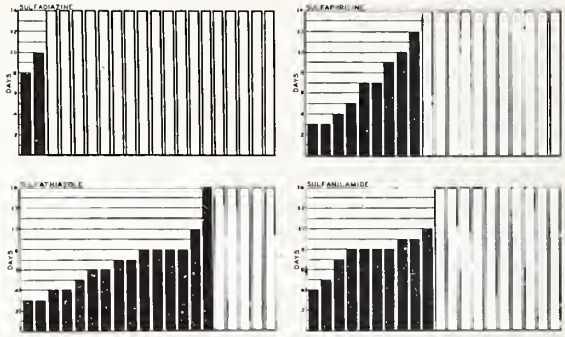


Figure 1. Chemotherapeutic Action on Type III Pneumococci in Mice

Each vertical column represents a mouse infected with 10^{-4} cc. of the culture of Type III pneumococci, and treated per os with five doses of 30 mg. of the drug indicated. There are twenty animals in each group. The solid column means death, and the hollow column, survival of fourteen days. The results suggest that sulfadiazine is more efficacious than sulfapyridine and sulfathiazole. The control mice on 10^{-4} cc. of the same culture all died on the same day.

animals with 10^{-4} cc. of the culture dose, although they prolonged their survival time in the majority of cases. Sulfathiazole saved one life in both groups, showing perhaps a slightly lower activity. Control animals all died within twenty-four hours with 10^{-5} and 10^{-4} cc. of the Staphylococcus culture, and two out of ten mice survived the 10^{-6} cc. dose.

The anti-streptococcic action of sulfadiazine is also striking. As shown in Figure 2, two 5-milligram doses were sufficient to bring about eighteen survivals (fourteen days) and prolongation of life in the remaining two mice out of a group of twenty infected with 10^{-4} cc. of the culture. Sulfanilamide, sulfapyridine, and sulfathiazole, in the same dosage, were apparently less effective as far as the number of surviving

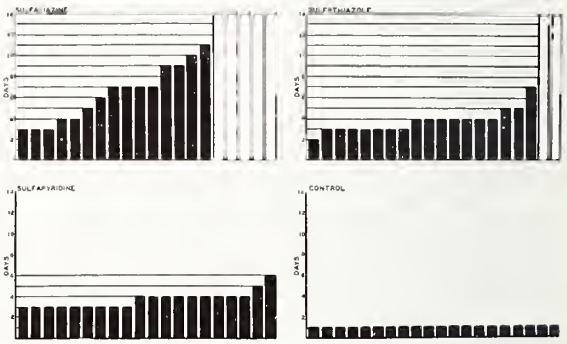


Figure 2. Chemotherapeutic Action on Streptococcus in Mice

Each vertical column designates a mouse inoculated with 10^{-4} cc. of the culture of Streptococcus hemolyticus, and treated by mouth with two 5-mg. doses of the respective drugs. Twenty animals are used in each group. The solid column again indicates death, and the hollow column, survival of fourteen days. Sulfadiazine appears to have a higher potency than sulfanilamide, sulfapyridine, and sulfathiazole. Twenty control mice on 10^{-4} cc. of the same culture, not shown here, all died on the first day.

animals was concerned. Twenty control mice on the same infecting dose all died the first day.

No beneficial effect was noted in mice receiving influenza virus with six 5-, 10-, or 20-milligram doses of sulfadiazine given orally. The results are in agreement with those of sulfanilamide, sulfapyridine, and sulfathiazole.

2. Absorption and Elimination

Four rabbits were given sulfadiazine orally in the dose of 581 mg. per kg. (equivalent to 400 milligrams of sulfanilamide). Their blood concentrations for both the free and the acetylated forms were determined according to the method of Bratton and Marshall [21] at various intervals. Two of the rabbits received in addition to sulfadiazine, equivalent doses of sulfanilamide, sulfapyridine, and sulfathiazole, with a week's rest between succeeding drugs. This method of comparison, namely in the same animal, tends to yield more valuable information, especially because the individual variations of animals are so great. The results are listed in Table 1. It is apparent that maximal blood concentrations of the free form of the four drugs from high to low run in the order of sulfanilamide, sulfathiazole, sulfadiazine, and sulfapyridine. At the end of twenty-four hours the blood concentrations of free and acetylated sulfathiazole, sulfanilamide, and sulfapyridine rapidly fell, while that of sulfadiazine remained relatively high. Even at the end of thirty-two hours, as in rabbits numbered *3* and *4*, the blood concentrations of sulfadiazine were well sustained. Sulfadiazine in rabbits is, therefore, more slowly eliminated than the other three sulfonamides. Regarding the extent of acetylation, the results of rabbit numbered *1* seemed to indicate that sulfadiazine underwent less conjugation than the other three drugs; but in the rabbit numbered *2* which showed very little acetylation at any time, this was not fully substantiated. It will require more experiments before this point can be considered settled.

Table 1. Blood Concentration of Sulfadiazine, Sulfapyridine, Sulfathiazole, and Sulfanilamide in Rabbits

Rabbit Number	Sex	Body Weight	Drug	Dose per kg	Time after Administration	Blood Concentration: Free	Blood Concentration: Total
		kg.		mg. per kg.	hr.	mg. per 100 cc.	mg. per 100 cc.
1	M	2.198	Sulfadiazine	581	1	4.25	6.75
					2	4.75	8.50
					3	4.75	9.30
					4	5.75	12.00
					5	5.75	12.50
					6	6.25	12.60
					7	7.75	17.00
					8	8.75	12.60
					10	6.75	14.60
					12	5.25	13.60
					24	1.00	13.60
			Sulfapyridine	579	1	5.75	14.60
					2	5.00	15.00
					3	4.75	16.00
					4	3.50	15.50
					5	3.25	16.00
					6	3.50	16.00
					7	2.00	12.60
					8	2.00	12.60
					11	1.00	10.60
					24	1.00	9.60
			Sulfathiazole	593	1	14.00	15.50
					2	12.00	18.50
					3	8.50	15.00
					4	5.20	13.00
					5	4.60	12.00
					6	4.00	8.00
					7	3.00	7.00
					8	2.00	6.50
					11	trace	7.20
					24	0.00	2.50
			Sulfanilamide	400	1	14.50	18.60
					2	16.60	24.50
					3	12.75	22.50
					4	9.25	21.00
					5	7.40	19.50
					6	6.00	15.50
					7	3.75	15.25
					8	3.10	12.75
					11	1.50	8.40
					24	0.80	2.40
2	M	2.108	Sulfadiazine	581	1	5.25	5.25
					2	5.75	6.75
					3	6.50	7.50
					4	8.25	9.00
					5	10.90	13.00
					6	12.30	14.60
					7	16.30	17.30
					8	17.00	18.00
					10	22.60	24.20
					12	25.50	25.50
					24	6.75	7.75
			Sulfapyridine	579	1	12.00	13.30
					2	12.30	13.60
					3	14.60	16.60
					4	14.60	16.60
					5	15.00	19.00
					6	16.50	19.60
					7	18.50	20.40
					8	19.00	21.60
					11	18.50	22.40
					24	1.75	2.75
			Sulfathiazole	593	1	21.00	22.00
					2	26.50	28.50
					3	22.50	26.00
					4	22.00	24.00
					5	20.50	24.00
					6	17.00	17.00
					7	14.00	14.60
					8	12.50	14.00
					11	8.00	9.00
					24	0.00	0.00
			Sulfanilamide	400	1	24.50	24.50
					2	26.60	27.50
					3	28.00	29.00
					4	26.00	27.50
					5	25.60	27.50
					6	26.60	28.50
					7	28.00	31.00
					8	24.50	26.60
					11	21.00	23.00
					24	6.00	6.00
3	M	2.138	Sulfadiazine	581	1	5.00	6.75
					2	5.50	7.75
					3	6.00	8.75
					4	5.00	8.75
					5	5.00	7.50
					6	4.25	7.50
					7	3.60	6.00
					8	3.60	6.50
					12	5.50	9.00
					24	4.25	21.50
					32	3.40	38.00
4	M	2.081	Sulfadiazine	581	1	4.50	6.00
					2	6.75	9.60
					3	8.00	11.20
					4	10.90	14.60
					5	12.00	16.30
					6	14.30	19.60
					7	12.00	22.00
					8	12.00	26.80
					12	13.30	48.60
					24	26.80	60.00
					32	2.80	54.00

Two female dogs were given by mouth equimolecular doses of the four sulfonamides—all equivalent to two hundred milligrams of sulfanilamide per kilogram based on the initial body weight. The drugs were dispensed in capsules. A week's rest was allowed between two succeeding doses. Blood samples were collected at various periods. Simultaneously, the animals were catheterized, and their urine specimens were measured and examined for the drug administered. Both animals vomited between the second and fourth hours following sulfathiazole, so that the data are not as quantitative as intended. This undesirable feature may not be without significance from a clinical point of view.

The results are summarized in Table 2. The first dog showed the same order of maximal blood concentration as the rabbits, namely, sulfanilamide, sulfathiazole, sulfadiazine, sulfapyridine. The second animal had a lower level of sulfathiazole than that of sulfadiazine. This discrepancy, however, may be attributed to the partial loss of sulfathiazole by vomiting and should not be accepted as evidence against the relative order of maximal blood concentration as mentioned.

In both experiments with dogs, only a trace of sulfathiazole was present in the blood stream at the end of twenty-four hours. The blood concen-

[21] Bratton, A. C. and Marshall, E. K. Jr.: A New Coupling Component for Sulfanilamide Determination, *J. Biol. Chem.* **128**:537, 1939.

Table 2 Absorption and Excretion of Sulfadiazine, Sulfapyridine, Sulfathiazole, and Sulfanilamide in Dogs

Dog Number	Sex	Body Weight	Drug	Dose per kg	Time after Administration	Blood Concentration	Urinary Excretion	
		kg.		mg. per kg.	hr.	mg. per 100 cc.	mg. per 100 cc.	total mg.
1	F	7.7	Sulfadiazine	290	1	3.00	10.00	5.20
					2	5.50	58.00	2.70
					3	7.00	136.00	14.90
					4	7.75	248.00	11.20
					5	7.25	424.00	14.40
					6	7.00	295.00	12.10
					7	6.75	480.00	8.60
					8	6.75	374.00	10.50
					9	6.25	40.00	0.80
					12	5.00	424.00	36.00
					24	0.75	42.50	4.50
			Sulfapyridine	289	1	2.25	22.00	5.40
					2	3.25	215.00	36.00
					3	4.75	810.00	44.60
					4	4.75	1000.00	55.00
					5	3.75	1400.00	64.40
					6	3.00	1030.00	6.20
					7	2.75	900.00	36.00
					8	2.25	875.00	21.90
					11	1.75	950.00	93.00
					24	0.80	675.00	202.50
			Sulfathiazole	296	1	7.00	9.50	4.90
					2	7.20	40.00	3.80
					3	10.75	425.00	27.60
					4	12.50	650.00	61.80
					5	12.75	720.00	61.20
					6	10.00	900.00	48.60
					7	8.50	800.00	52.00
					8	6.50	950.00	90.30
					11	3.50	650.00	52.00
					24	trace	460.00	110.40
			Sulfanilamide	200	1	8.80	59.00	21.40
					2	11.20	820.00	37.70
					3	15.25	1225.00	52.70
					4	18.30	1600.00	105.60
					5	18.30	820.00	20.50
					6	16.00	1225.00	79.60
					7	15.50	1100.00	99.00
					8	13.50	1425.00	99.80
					11	11.00	1425.00	116.40
					24	2.00	76.00	15.30
2	F	7.8	Sulfadiazine	290	1	trace	3.60	0.18
					2	1.75	54.00	1.80
					3	7.25	248.00	10.70
					4	12.00	77.50	19.40
					5	14.00	206.00	25.10
					6	15.00	160.00	17.80
					7	15.60	196.00	20.00
					8	16.60	166.00	12.60
					9	16.00	235.00	17.40
					12	14.00	260.00	46.80
					24	5.75	38.00	20.90
			Sulfapyridine	289	1	1.75	64.00	5.80
					2	4.25	750.00	50.80
					3	5.75	1040.00	41.60
					4	6.25	1450.00	50.80
					5	4.00	1400.00	42.00
					6	3.75	650.00	13.00
					7	3.50	1060.00	31.80
					8	2.75	1000.00	25.00
					11	1.00	875.00	91.90
					24	0.60	525.00	81.40
			Sulfathiazole	296	1	6.00	50.00	6.60
					2	8.00	500.00	25.00
					3	10.75	650.00	48.80
					4	9.00	1000.00	10.00
					5	7.25	400.00	108.00
					6	4.25	50.00	15.00
					7	4.00	200.00	36.00
					8	2.50	200.00	11.00
					11	1.50	400.00	48.00
					24	trace	200.00	62.00
			Sulfanilamide	200	1	2.00	3.75	0.95
					2	6.10	120.00	7.30
					3	9.50	360.00	19.80
					4	15.30	375.00	18.80
					5	17.30	820.00	65.60
					6	21.50	860.00	60.20
					7	21.50	925.00	87.90
					8	20.50	950.00	76.00
					11	16.60	1140.00	102.60
					24	4.40	120.00	2.40

trations of the other three products were better sustained. The differences among the latter three, which showed wide individual variations in the animals, were not as clean-cut as in rabbits. It can be definitely said, however, that of the four compounds, sulfathiazole is the most rapidly eliminated.

Rats fed on sulfonamide drugs, incorporated in food, for a long period of time, afford information on continuous medication. In a series of experiments to be outlined fully in a later section, frequent examinations of the rats' blood revealed high levels of the drug. As shown in Figure 3, 1.5 per cent sulfadiazine in food gave rise to a higher average of blood concentrations of free sulfadiazine than those of free sulfapyridine and sulfanilamide, respectively, in groups of five animals each. The results of additional groups, five rats in each, are as follows: the daily blood concentration (average of five rats), with 1 per cent sulfadiazine in food, varied from 17 to 30 mg. per 100 cc.; with 2 per cent, 27 to 45; with 2.5 per cent, 28 to 41; and with 3 per cent, 21 to 42. Increase in the intake of sulfadiazine was not accompanied by a proportional increase in blood concentration. The daily blood concentration (average of five animals) with 0.5 per cent sulfapyridine in food ranged from 7 to 15 mg. per 100 cc.; that with 1 per cent, from 9 to 23; and that with 2 per cent, from 7 to 38. The daily blood concentration (average of five rats) with 0.5 per cent sulfanilamide in food varied from 5 to 9 mg. per 100 cc.; and that with 1 per cent, from 7 to 15.

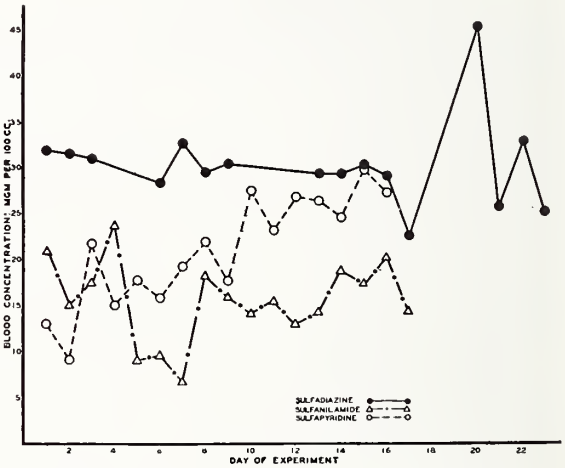


Figure 3. Blood Concentration by Continuous Medication in Rats

Each curve denotes the average blood concentration of the drug indicated. There are five rats in each group. They are individually fed on 1.5% sulfadiazine, sulfapyridine, and sulfanilamide, in food, respectively. Blood samples are taken at the same time each day, or five times a week. Each rat contributes about 0.02 cc. of blood, so that when pooled from the entire group, it becomes slightly over 0.1 cc. Only the free form is determined. It is apparent that the average blood concentration under sulfadiazine therapy is higher than that during sulfapyridine or sulfanilamide medication.

3. Acute Toxicity

By mouth it took a large amount of sulfadiazine to kill mice as shown in Table 3, the median lethal dose, LD_{50}, being greater than 34 gm. per kg. However, when given by intraperitoneal injection, the LD_{50} was found to be 3.787 ± 0.303 gm. per kg. The sodium salt, being water soluble and more easily absorbed, proved to be more toxic to mice—the LD_{50} by vein being 1.094 ± 0.093, and that by mouth 2.586 ± 0.235, gm. per kg., respectively. The toxicity figures, previously reported,[19,20] or unpublished, of sulfadiazine, sulfathiazole, sulfapyridine, and sulfanilamide, and their sodium salts, are compared in Table 4. It may be noted that sulfadiazine has a low oral toxicity, comparable to that of sulfapyridine. When injected intraperitoneally its toxicity becomes greater than that of sulfapyridine, but it is approximately equal to that of sulfathiazole, and less than that of sulfanilamide. The sodium salt of sulfadiazine is least toxic by vein as compared with the sodium

salts of sulfanilamide, sulfapyridine, and sulfathiazole. If given by mouth, the sodium salt of sulfathiazole is the least toxic of the four compounds.

A general impression was gained that the death of mice was slower from lethal doses of sulfadiazine and its sodium salt than from those of sulfanilamide, sulfapyridine, sulfathiazole, and their sodium salts. For example, by intraperitoneal injection, mice either died within three or four days or recovered completely with the latter drugs, while with sulfadiazine they continued to die at the end of a week following administration. Necropsies of these animals revealed no pathological lesions.

Table 3. Acute Toxicity of Sulfadiazine and Its Sodium Salt in Mice

Drug	Concentration	Route of Administration	Dose	Number Died / Number Used	LD_{50} ± Standard Error
	percent		gm. per kg.		gm. per kg.
Sulfadiazine	50 (in acacia)	Intraperitoneal	1.8	0/8	3.787 ± 0.303
			2.3	1/8	
			3.0	0/8	
			3.9	4/8	
			5.4	8/8	
	50 (in acacia)	Oral	30.0	0/5	>34.0
			34.0	2/8	
Sulfadiazine Sodium	5	Intravenous	0.95	2/8	1.094 ± 0.095
			1.1	5/8	
			1.3	6/8	
			1.6	6/8	
			1.9	8/8	
	5	Oral	2.0	2/12	2.586 ± 0.235
			2.5	4/8	
			3.0	11/12	
			3.7	8/12	
			4.5	5/5	

Table 4. Comparison of Acute Toxicity of Sulfadiazine, Sulfapyridine, Sulfathiazole, and Sulfanilamide, and Their Sodium Salts in Mice

Drug	Route of Administration	Median Lethal Dose ± Standard Error (LD_{50} ± S. E.)
		gm. per kg.
Sulfadiazine	Intraperitoneal	3.787 ± 0.303
	Oral	>34.0
Sulfadiazine Sodium	Intravenous	1.094 ± 0.095
	Oral	2.586 ± 0.235
Sulfapyridine	Intraperitoneal	27.49 ± 6.77
	Oral	>34.0
Sulfapyridine Sodium	Intravenous	0.696 ± 0.018
	Oral	2.764 ± 0.113
Sulfathiazole	Intraperitoneal	3.233 ± 0.182
	Oral	12.77 ± 0.89
Sulfathiazole Sodium	Intravenous	0.708 ± 0.018
	Oral	8.884 ± 1.777
Sulfanilamide	Intravenous	0.587 ± 0.031
	Intraperitoneal	1.698 ± 0.063
	Oral	5.09 ± 0.154
Sulfanilamide Sodium	Intravenous	0.621 ± 0.018
	Oral	3.22 ± 0.116

4. Feeding Experiments

Experiments were carried out with young rats weighing ninety-three to one hundred grams by feeding in food various concentrations of sulfadiazine, sulfapyridine, and sulfanilamide, respectively, in a similar manner as Bieter, Larson, Cranston, and Levine [22] and Litchfield, White, and Marshall [23] studied sulfonamide drugs in mice. Such a method of continuous medication yields data on chronic toxicity. The animals were housed in individual cages and their daily food consumption and body weight carefully recorded. The duration of study lasted from sixteen to twenty-three days. Groups of five animals were employed on each concentration of the drug. Rats, being larger than mice, could be bled daily. For estimation of the drug concentration, samples of approximately 0.02 cc. were collected from the tail vein of each rat, so that when pooled in each group of five animals, a total volume of 0.1 cc. of blood would be obtained. It thus became possible, as with still larger animals, to make determinations of the drug in an easily available photoelectric colorimeter, such as the "photelometer."

The highly sustained levels of sulfadiazine in blood, as compared with those of sulfapyridine and sulfanilamide, have been mentioned above in connection with absorption (Figure 3). It suffices here to enumerate other observations from the feeding experiments. The rats' average daily consumption of food diminished as the concentrations of the drugs increased. Thus with sulfadiazine, it was 7.5 gm. per day on 1% of the drug in food; 6.4 gm. on 1.5%; 5.5 gm. on 2%; 5.2 gm. on 2.5%, and 5.1 gm. on 3%. Similarly with sulfapyridine, it was 8.7 gm. per day on 0.5%; 7.4 gm. on 1%; 4.8 gm. on 1.5%, and 4.8 gm. on 2%. With sulfanilamide, it was 9.8 gm. per day on 0.5%; 7.1 gm. on 1%, and 7.3 gm. on 1.5%. In contrast, five control rats ate a daily average of 10.2 gm. of food.

The growth of the medicated animals was uniformly inhibited. A few groups on higher concentrations of the drugs actually experienced a loss of body weight when compared with the initial weight. In the sulfadiazine experiment which lasted twenty-three days, the group of five rats on 1% of the drug in food gained an average of 10.2 gm.; that on 1.5%, 6.1 gm.; that on 2%, on the other hand, lost an average of 5.8 gm.; that on 2.5%, 7.3 gm., and that on 3%, 8.2 gm. With sulfapyridine, the group on 0.5% gained 0.7 gm. in sixteen days; and that on 1%, 10 gm.; but that on 1.5% lost 11.8 gm. in sixteen days, and that on 2%, 17.9 gm. in nineteen days. With sulfanilamide the group on 0.5% gained 19.4 gm. in sixteen days; that on 1%, 7.5 gm. in seventeen days, and that on 1.5%, 4.8 gm. in seventeen days. In the control group, namely without

[22] Bieter, R. N.; Larson, W. P.; Cranston, E. M., and Levine, M.: Protective Chemotherapy of Type II Pneumococcus Infections in Mice, *J. Pharmacol. & Exper. Therap.* **66**:3, 1939.

[23] Litchfield, J. T. Jr.; White, H. J., and Marshall, E. K. Jr.: The Experimental Basis for a Method for the Quantitative Evaluation of the Effectiveness of Chemotherapeutic Agents against Streptococcus Infection in Mice, *J. Pharmacol. & Exper. Therap.* **67**:437, 1939.

medication, the average gain in weight amounted to 34.7 gm. in seventeen days.

Few rats died before the termination of the experiment. One animal on 2% sulfadiazine succumbed on the seventh day. Autopsy disclosed extreme emaciation but no pathological lesions. Its death was therefore due to inanition. There was one death in each group of 1, 1.5, and 2% sulfapyridine. With sulfanilamide, one rat died on 1%, and two on 1.5%. All surviving rats were sacrificed and their organs as well as those from prematurely dead animals were studied both grossly and microscopically. In the sulfadiazine series the most constant feature was the deposition of fine crystals in the collecting tubules of the kidney, which became dilated. This occurred in two rats on 1% of the drug; four each on 1.5 and 2%, respectively; and five each on 2.5 and 3%, respectively. In the sulfapyridine series, the renal damage was more severe, consisting of hydronephrosis, dilatation of ureters and collecting tubules, with aggregates of crystals in the kidney pelvis, ureters, and urinary bladder. These lesions were present in two rats on 0.5 and 1% sulfapyridine in food, respectively; four on 1.5%, and five on 2%. The feeding of sulfanilamide to rats apparently did not cause crystal formation, and thus no kidney pathology.

SUMMARY

1. The chemotherapeutic action of sulfadiazine compares favorably, weight for weight, with that of sulfapyridine, sulfathiazole, and sulfanilamide in mice infected intraperitoneally with pneumococci, types I, II, and III, Staphylococcus aureus, and Streptococcus hemolyticus. Results appear to indicate that sulfadiazine is slightly more effective than the other three drugs against type III pneumococci and hemolytic streptococci.

2. Like sulfanilamide, sulfapyridine, and sulfathiazole, sulfadiazine has no action against a fast strain of type III pneumococci and influenza virus.

3. Sulfadiazine when given orally is easily absorbed. Following single, equimolecular doses in rabbits and dogs, the maximal blood concentration of sulfadiazine in free form is higher than that of sulfapyridine, but lower than that of sulfanilamide and sulfathiazole.

4. Sulfadiazine is more slowly eliminated than sulfathiazole as studied in the blood and urine of rabbits and dogs.

5. Rats fed on sulfadiazine incorporated in food show sustained levels of the drug in free form, which appear higher than those of sulfapyridine and sulfanilamide when the same concentrations of the drugs are mixed with food.

6. Sulfadiazine given by mouth in mice fails to kill the majority in doses as large as 34 grams per kilogram. By intraperitoneal injection, its toxicity is higher than that of sulfapyridine.

7. The sodium salt of sulfadiazine when injected intravenously in mice is the least toxic as compared with the sodium salts of sulfanilamide, sulfapyridine, and sulfathiazole. This does not hold true for oral administration. The sodium salt of sulfathiazole when given by mouth is the least toxic.

8. Sulfathiazole is more emetic to dogs than the other three sulfonamides, including sulfadiazine.

9. Feeding of sulfadiazine in food to rats results in decrease of food consumption and consequently inhibition of growth. This is also true with sulfapyridine and sulfanilamide. The animals on sulfadiazine show deposits of fine crystals in collecting tubules and dilatation of the same. The kidney damage in similar experiments with sulfapyridine is more severe, comprising hydronephrosis, dilatation of ureters and collecting tubules, with aggregates of crystals in the renal pelvis, ureters, and the urinary bladder. There is no kidney involvement following feeding of sulfanilamide.

10. A résumé of literature on sulfadiazine has been made.

ABSTRACT: A MORE CONSERVATIVE ATTITUDE TOWARD APPENDECTOMY ADVISED

Additional evidence of the importance of a conservative attitude toward operations for "chronic appendicitis" is presented in *The Journal of the American Medical Association* for September 20 in a report by Richard Warren, M.D., and H. Thomas Ballantine, Jr., M.D., Boston.

From their study of 138 cases in which an uninflamed appendix had been removed because of abdominal pain, the authors conclude that "chronic appendicitis" is a clinical entity consisting of recurrent pain in the right lower portion of the abdomen which is usually unrelated to past or present disease conditions in the appendix. However, about three-fourths of the patients experienced partial or complete relief from the symptoms that they had before the operation and one-fourth remained unimproved or were made worse.

Patients with a long history and those with numerous attacks of pain did not have such a high percentage of good end results as did those with a short history or those with few attacks. Better results were achieved in men than in women. The mortality from the operation is low, but the morbidity and the period of incapacity cannot be ignored, the authors say.

"The results described," they declare, "should be regarded as grounds for the adoption of a more conservative rather than a less conservative attitude toward operation for chronic appendicitis."

Elaborating on the poorer results obtained in the group of patients with long histories and numerous attacks, the two men say that those results might be explained by the fact that when a patient complains of "innumerable" attacks for "years" one must be on guard for emotional or mental factors which might influence the picture.

"Appendectomy," they say, "as a form of psychotherapy is not good treatment. It may be also that those persons with a short history or with only a few attacks were those with true digestive complaints of obscure nature and that appendectomy was only coincidental with the spontaneous remission of symptoms."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943

NOVEMBER, 1941

Editorials

THE INDIANAPOLIS CONVENTION

1890

The four figures above indicate the registration at the ninety-second annual convention of the Indiana State Medical Association—the largest registration in our history. It also may well be said that this was the outstanding gathering in all those years, not only from the standpoint of attendance, but also in the excellence of the scientific program, the enthusiasm observed among the groups who took part in the sports program of the opening day, and the exhibits, both commercial and scientific—all of which outdid former accomplishments.

Of course, we cannot overlook the participation of the group that long ago became the good right hand of the Association, the Auxiliary—"they done noble!" Looking back over the rather strenuous three-day period, we are unable to find a single flaw in the entire program. All events opened and closed at the scheduled time, general and section meetings were unusually well attended, and the fall of the closing gavel came all too soon for most of us.

The various election programs went along smoothly, and we are well assured that the Association affairs will continue in good hands. Dr. Carl McCaskey, of Indianapolis, was unanimously chosen as President-elect for 1942, and Ferd Weyerbacher was, of course, again named as our treasurer. E. O. Asher, of New Augusta, replaces McCaskey as a member of the Executive Committee.

E. M. Shanklin was named as editor of The Journal for the tenth year, and new members of the Editorial Board are J. O. Ritchey, of Indianapolis, and Robert V. Hoffman, of South Bend. They replace Edgar Kiser, of Indianapolis, and L. T. Rawles, of Fort Wayne. (Editorial Board members are elected for a term of three years and cannot succeed themselves.)

Edgar Kiser was appointed to the post of Association Historian. Frank S. Crockett, of Lafayette, and Don Cameron, of Fort Wayne, were named to succeed themselves as delegates to the American Medical Association, as were Norman Beatty, of Indianapolis, and A. M. Mitchell, of Terre Haute, as alternates.

Section officers for 1942 were named as follows: Medical Section, J. E. McMeel, M.D., South Bend, chairman; D. E. Wood, M.D., Indianapolis, vice-chairman, and George Willison, M.D., Evansville, secretary.

Section on Ophthalmology and Otolaryngology: E. O. Alvis, M.D., Indianapolis, chairman; E. L. Van Buskirk, M.D., Lafayette, vice-chairman, and B. D. Ravdin, M.D., Evansville, secretary.

Anesthesia Section: E. P. Buckley, M.D., Jeffersonville, chairman; F. W. Ratcliff, M.D., Lafayette, vice-chairman, and J. M. Whitehead, M.D., Indianapolis, secretary.

Section on Surgery: A. H. Duemling, M.D., Fort Wayne, chairman; V. Earle Wiseman, M.D., Greencastle, vice-chairman, and W. D. Inlow, M.D., Shelbyville, secretary.

Sports champions for the coming year are Drs. C. M. Donahue, of Carmel, and H. C. Adkins, of Indianapolis, who tied in the trap shoot with a score of 97 x 100. Dr. Adkins also won the skeet shoot tournament, his score being 48 x 50.

On the golf course Dr. Boyd Burkhardt, of Tipton, showed 'em all how it should be done, with Dr. C. M. Sennett, of South Bend; Dr. Edwin Dyar, of Indianapolis, and Dr. Cleon Nafe, of Indianapolis, following in order. (At the Council luncheon Dr. Nafe spent most of his time showing his score card, continually talking about the number of birdies thereon.) Dr. George Balsbaugh, of North Manchester, was awarded the low net prize, with a score of 58.

The House of Delegates went to work with vim from the beginning of the first session and operated at top speed throughout. The Council, as usual, had a large agendum before it but came through in its customary accomplished style. French Lick was chosen as the seat of the 1942 Convention.

Thus ended one of our most successful meetings, certainly the largest from the standpoint of attendance.

Fred W. Rankin, M.D., President-elect of the American Medical Association, Lexington, Kentucky, was the principal speaker at the Annual Banquet.

Guest speakers who participated in the scientific program were:

L. H. Bauer, M.D., Editor of the *Journal of Aviation Medicine*, Hempstead, New York.
J. P. Nesselrod, M.D., Evanston, Illinois.
Richard B. Cattell, M.D., Boston, Massachusetts.
J. P. Leake, M.D., Medical Director, United States Public Health Service, Bethesda, Maryland.
Ralph Pemberton, M.D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia.
Russell Haden, M.D., Cleveland, Ohio.
W. K. Jennings, M.D., Associate Professor of Surgery, Northwestern University Medical School, Chicago, Illinois.
Sanford Gifford, M.D., Professor of Ophthalmology, Northwestern University Medical School, Chicago, Illinois.
Paul Wood, M.D., New York City.
William D. Province, M.D., Resident in Medicine, Presbyterian Hospital, New York City.
Charles Mazer, M.D., Assistant Professor of Gynecology, Graduate School of Medicine, University of Pennsylvania, Philadelphia.
C. D. Selby, M.D., Detroit, Michigan.
J. J. Moorehead, M.D., Professor of Clinical Surgery, New York Post-Graduate Medical School, Columbia University, New York.
Fred M. Smith, M.D., Professor of Theory and Practice, State University of Iowa College of Medicine, Iowa City, Iowa.

THE PRESENT CONCEPT OF DIABETES

Progress in the study of endocrinology and physiological chemistry has occasioned frequent changes in our concept of diabetes mellitus. The etiology is now known to have a definite relation to the function of several of the endocrine organs, to the function of the liver, and to the metabolism of carbohydrates, fats and proteins. However, in spite of this recently acquired information, our knowledge of diabetes is far from complete and there will, of necessity, be many alterations and additions as the studies are further pursued.

The endocrinological influences which are active in the control of carbohydrate metabolism have been recognized in the past decade. Houssay's classical experiment demonstrates clearly the important position that the hypophysis occupies in controlling sugar metabolism. He showed that removal of the hypophysis in an animal previously rendered diabetic by pancreatectomy resulted in a definite improvement in the diabetes. In more recent years the relationship between the hypophysis and carbohydrate metabolism has been demonstrated by Young's experiments, which showed that diabetes could be induced in an animal by the repeated injection of anterior pituitary extract. This work has been confirmed, and it is known that it requires a certain period of administration before a lasting diabetes can be produced. The mechanism of the effect is shown to be a gradual exhaustion of the pancreas. It is possible that hyperactivity of the pituitary may play a role in clinical diabetes. This is suggested by the high incidence of diabetes in acromegaly. Similar effects following pancreatectomy and adrenalectomy have been reported by Long. These researches have led to the growing belief that diabetes is not due primarily to a reduction in the amount of insulin produced, but is more likely to a complex disturbance of hormonal functions, particularly of the pituitary and adrenal glands.

Another important change in our concept of the metabolism of carbohydrates pertains to the role of the liver. According to Soskin the liver is all-important in controlling the blood sugar. In the fasting state the liver is the sole source of glucose for the blood. Influences which tend to reduce the sugar concentration in the blood below a certain level result in the release of sugar from the liver. Such influences include impulses from the central nervous system and changes in the endocrine balance. Although Claude Bernard recognized the fact that carbohydrate metabolism represented a balance between the utilization of sugar in the tissues and the formation of sugar in the liver, our attention has until recently been diverted toward the pancreas and the role of insulin in the peripheral utilization of sugar. The exact nature of the action of insulin is still unknown. We believe that rise in the blood sugar above certain levels causes insulin to be released, and it is thought that the insulin encourages oxidation of glucose in the tissues. It also seems to be essential to the formation of muscle and liver glycogen. However, it is now clear that insulin is only one factor in a complicated mechanism the main purpose of which seems to be the maintenance of a stable blood sugar level. It is quite apparent that a disturbance of any of the several components of this complex endocrine system may result in the symptoms of diabetes.

A further important addition to our conception of diabetes concerns fat metabolism. Stadie has recently demonstrated that conversion of fatty acids to glucose does not occur in diabetic liver slices. These studies showed that the chief oxidation product of fats is ketone bodies. He has also shown that the ketones can be utilized by the body for energy to an extent sufficient to meet energy demands. The oxidation of ketones, according to this view, is independent of carbohydrate metabolism. According to Stadie, when carbohydrate is being utilized for energy, fats are completely oxidized and only when excessive amounts of fat are required for energy, as in diabetes, are sufficient quantities of ketone bodies present to produce clinical acidosis. The Beta oxidation theory of the metabolism of fats seems to be definitely disproved by this work, and the concept of a mathematical proportion between ketogenic and antiketogenic

factors is apparently based on an erroneous premise. Ketosis is then thought to be due to the utilization of excessive amounts of fat for body energy in individuals who do not utilize carbohydrates efficiently.

STOP THIS SLAUGHTER!

We refer, of course, to the ever-increasing toll of automotive accidents, this increase being nationwide. Reports from Indiana's larger cities for 1941 invariably show that a greater number of deaths and serious injuries have occurred than in any previous year. The step-up is so great as to warrant restraint action by public officials and the various civic bodies.

Governor Schricker has lent his support to such a movement, and in a recent address he made it clear that he advocated severe penalties for that most dangerous of maniacs, the drunken driver, too many of whom get off with a suspended sentence and a reprimand. Some time ago the Indianapolis Chamber of Commerce went on record in the matter and were partly instrumental in naming a special commission to see what could be done to stem this alarming tide.

The state and national press is urging remedial measures although suggestions as to a remedy seem to be few. The Indianapolis body, however, recently invited a municipal judge from Cleveland to address one of its dinner meetings, the topic for discussion being "The Control of Traffic Deaths and Injuries." Cleveland, be it known, along with Kansas City, Evanston and many other cities long ago began an intensive study of the traffic problem, and their findings have resulted in a low traffic-accident rate.

The Cleveland judge, not content to talk on generalities, went to Indianapolis a day or two prior to the meeting time and made an exhaustive study of court records of traffic violations. He was astounded to find that little more than fifty per cent of the offenders who really faced the hearing judge were found guilty and fined. Many cases were dismissed, and many offenders had their fines remitted and sentences suspended.

In commenting on this situation at the dinner meeting the judge remarked that in *his* court a guilty offender was fined and sentenced, and that the judgment of the court was carried out in almost every case.

This, of course, has brought results—good results. Not only have traffic violations been sharply reduced but also the death toll from Cleveland traffic accidents has been enormously reduced. Kansas City has had similar results, as has Evanston and all other cities that have tried the experiment.

We have never gone over to the traffic court in any of the cities in our section of the state. However, we read the daily record as given in the local press, and have observed that "fine and sentence suspended" appears all too frequently, as many as fifty per cent of the offenders hearing these words in one day's grist. We have discussed the matter with police officers in our own as well as other cities, and every one of them make the same statement: "We make the arrests for definite violations; we go to the court and tell the judge just what took place; the judge dismisses the offender—where are we?"

We agree with the statement of the Cleveland jurist that wherever traffic laws are enforced and the violators thereof are punished there is a sharp decline in traffic accidents. We again refer to Bartholomew County in our own state where all guilty traffic offenders are punished, practically all of these cases come before the circuit judge who seems to be adamant when one has violated a traffic law. The result is that fewer violations occur in that community.

The drunken driver is, of course, the worst of the lot. He has little or no sense of control of his car, his mental facilities—if he has any—have become too benumbed by drugs to carry on. He is sitting at the wheel of an engine of Death itself. Yet, throughout the entire country we see such creatures given suspended sentences, then go out and repeat the performance. One man in our community was haled before the local court *four times* for drunken driving. In not one instance was he fined or sentenced to jail; in not one instance was his license revoked.

The only plausible solution to the traffic problem at this time is *strict enforcement of existing laws.* We do not particularly need additional legislation —probably have too many traffic laws as it is—but we do need enforcement. No drunken driver and no consistent violator of traffic laws is entitled to any special consideration at the hands of judges. If a driver is found guilty, especially the drunken driver, he should not only be summarily dealt with in the matter of fine and incarceration for a varying period but his license should also be revoked —not for five or ten or even thirty days, but for a long period. This man or woman—the latter is also a violator of this law—is a menace to society. He is as dangerous as any maniac and must be dealt with accordingly. We talk of excessive speed, running stop-lights, et cetera; these all contribute to our death toll and there are laws seeking the control of these evils. We believe that a strict, impartial enforcement is the answer to this problem.

WAR AND MEDICINE

With the kaleidoscopic changes now taking place in war-torn Europe and with our own nation so uncertain as to future developments, Medicine finds itself in a state of wonderment. The preparedness program, even from its inception, was a stupendous affair—too large for the average mind to grasp. As the plans were unfolded it became quite

apparent that our profession was and is to play a highly important role in the program. We, of course, knew that a vast army in training meant that there would be a need for medical officers, and our various organized groups at once began making plans to meet that need.

Recent statements by many in authority make it apparent that Indiana physicians were in the vanguard in these preparations. Even before a call was issued, the Indiana State Medical Association had organized its committees. The "M-Day" Committee had formulated its plans in detail, and we were ready for the call.

The American Medical Association has classified some 150,000 physicians and has sent this list to official Washington. The authorities have tentatively set an age limit of fifty-five years for enlistment in the Army, Navy, etc. This means that something like 56,000 American physicians are eligible for these services.

The House of Delegates of the American Medical Association at its meeting in Cleveland last June went on record frankly in this matter. The Abell resolution, which was unanimously adopted, places the American Medical Association at the disposal of our government. In fact, this resolution urges that Congress enact legislation for the establishment of a "Procurement and Assignment Agency." We are informed that this bill is now being prepared and until it is officially introduced we will not know what its provisions may be.

There are some members of the profession who fear the consequences of this House resolution. They fear that certain Washington groups, long known as being in favor of regimentation of the medical profession, at least to some degree, will take undue advantage of the proffer made at the Cleveland meeting. Some have gone so far as to intimate that we will summarily be "sold down the river."

Be that as it may and come what may, the medical profession now stands obligated to carry on in accordance with the provisions of that resolution. We are unofficially advised that *six medical officers will be required for each thousand men in the service.* If that is true, no one needs to stretch his imagination in estimating the approximate number of medical men needed for this purpose. One association official, speaking off the record, was heard making the remark that it is altogether possible that one doctor out of every three under the age of fifty-five would be subject to call. This, of course, may be highly overestimated, but it is a certainty that several thousand physicians will be needed to carry on the program now planned.

The dispute regarding the drafting of medical students now seems settled. Official Washington has been convinced that replacements are necessary for the thousands of medical men already in the service. Our medical schools are to carry on and the student quota is to be increased wherever possible.

How the selection of physicians for this preparedness service is to be undertaken is still a question. It is, of course, possible, even probable, that the legislation now in preparation will take care of that phase. Considerable discussion and some complaint is being heard regarding the younger medical men being slow in enlisting in the various services. It is a fact that the greater percentage of those now in the service are from the upper age-groups. Many of these men have left lucrative practices and have entered the service. Colonel Schaeffer, of the United States Medical Corps, in speaking before the California Medical Association, recently said: "For some peculiar reason the older men of the profession seem anxious to serve, regardless of rank or financial consideration."

Southwest Medicine observes, "The attitude of the younger members of the profession is a sad contrast to that of their elders. Large numbers of those holding commissions in the Medical Reserve Corps resign or otherwise attempt to evade service when called, and it appears that those who do apply for commissions do so chiefly to avoid being inducted under the Selective Service Act."

Regardless of the personal opinion of individual physicians, the cold, bald fact remains that official Washington has before it the Abell resolution, a document which offers the services of American Medicine to the general program. There is no doubt that official Washington long ago accepted the proffer and that the plans now in the making will provide ways and means of selecting the needed physicians. This resolution provides not only for service in the Army, Navy, and Air Corps, but Civilian Defense is also covered, which makes it wholly possible for some Washington agency to transfer physicians from one location to another.

But after all we are "in it right up to our necks"; we cannot back track, hence we must go forward. We must accept such decisions as are made regarding our future.

Editorial Notes

Job holders of the Hoosier state are quite perturbed over an order issued by Governor Schricker to the effect that all automobiles purchased by the state for the use of these various patronage holders shall have the words "State Owned" stamped across the license plate. Of course, the purpose of this is to discourage the indiscriminate use of these cars for private use. At the same time James M. Tucker, secretary of state, announced that the 1942 license plates will begin with the number 10,000, thus eliminating the usual scramble for low license numbers.

The Indianapolis press continues to harp on traffic regulations in the capital city. Evidently those in charge of traffic laws, as well as the drivers of the various automotive vehicles, have never heard of the ruling of the United States Supreme Court in which the Court very definitely set forth the rights of the lowly pedestrian in his getting about the roads and streets of the nation—and, the pedestrian *does* have rights. The Court held that when a pedestrian essays the crossing of a public street where the traffic is governed by "lights" the pedestrian has the right to complete that crossing. In Indianapolis it seems that no one but the pedestrian knows about this law.

The new marriage license law of Ohio, which recently became effective, has a rather unusual provision in that the couple seeking a license is charged a fee of $12.00. The license fee of two dollars is retained by the county clerk, and the remaining ten dollars pays for the serological tests. It is reported that the state pays the ten-dollar fee in case of indigents. The law further provides that the marriage banns may not be announced until the physician's statement is in the hands of the minister making the publication. It seems that this law makes ample provision for enforcing a waiting period. We had supposed that Indiana had taken such action, but it seems that conniving court clerks, dissolute physicians and laboratories that are willing to "play ball," even though they violate the laws of the State Board of Health, make *hurry-up* marriages possible in some sections of our state.

In the past few years we have said a great deal about the incidence of tularemia in Indiana, showing that "rabbit disease" is increasing not only in our state but that it is gradually spreading eastward. We now hear that a few cases develop each year in New England. As is well known, tularemia is a California product; that is, the disease was first discovered and described in California. California, it seems, has harbored other undesirable citizens, pests that we had hoped might be eradicated ere they started their eastward trek. Notable among these pests is the plague infection. Our latent fears have been based on more than a possibility, for the plague infection already has been noted as far east as North Dakota. The small wild life, such as ground squirrels, rats and marmots, are responsible for its spread. Dr. Thomas Parran, head of the United States Public Health Service, called a conference which was held in Salt Lake City, August twenty-eighth and twenty-ninth, for the discussion of a plague-control program. It might be well to remember that we are not far from North Dakota, hence we should be on the lookout for this pest.

Two Boston scientists finally have come to our rescue and if we can sell their ideas to our immediate family much cool-weather argument will be averted. These writers, article published in the *J.A.M.A.* for October 11th, comment on the air conditioning problem, which is just now receiving much attention. They have arrived at the following conclusion, with which we most heartily agree:

"If women would dress in winter with clothes that are comparable in warmth to those of men, they would be comfortable in a temperature of about 72 F. instead of 76 F., and there would be less discord over the matter of room temperature."

We long have tried to sell this idea in our own home, but to no good purpose. We are now planning to frame excerpts from this article and hang them alongside the thermostat, then await the expected explosion.

Arthur Hargrave, octogenarian editor of the Rockville *Republican* and conductor of one of the most interesting columns in Indiana, seems occasionally to have an attack of a common disorder, a condition which we characterize as a "pre-awakening dream." He vividly describes such a seance in a recent issue of his paper:

"In a half-asleep state the other night this came to mind: There were strong indications that the price of wheat was about to tumble and it was desirable to dispose of the crop quickly. A committee of three was appointed to sell it. Before two of us could take any action 960,000 bushels had been sold and we two were fired. Then I was appointed on a committee of three to determine why the legs of flies do not get tangled when they sit down and rub them together. The flies wouldn't tell us and we quit!"

Dr. C. W. Myers, superintendent of the Indianapolis City Hospital, while speaking before a law group in Indianapolis unburdened himself of a lot of factual data on "welfare," according to an editorial in the *Star*, declaring that while we have all kinds of social welfare, much of it is overlapping, bringing about a lot of duplication and waste of effort. He has discovered that folk of today feel no disgrace in asking assistance of various kinds, in fact, too many of them now expect it. Those of us who are called upon to render services in these welfare cases agree with the speaker. We are creating a new race, a race of "Gimmes"—for want of a better term. It is a common experience to make an appointment for examination of an indigent individual—we of course choosing a time most convenient to us—and have him come in an hour or two later than the appointed time, blandly smirking and giving the excuse that "I was too busy to come earlier." If an indigent is that busy, he is not an indigent.

Governor Henry F. Schricker is to be complimented by the medical profession of the state for his action resulting in the dissolving of another of the political or patronage rackets, this one having to do with the annual physical examination of barbers and beauty operators of the state, which number somewhere around 11,000. At the time this law went into effect a few years ago, a few more than two hundred Indiana physicians were specifically named as examiners for this purpose, the examinations to be made annually—resulting in about $44,000 a year being distributed to this hand-picked group of physicians. We have complained about this unfair set-up during all this time, but not until recently have we been able to find a friendly ear at the State House. By the Governor's order, these examinations can now be made by any member of the Indiana State Medical Association.

Several thousand American physicians have left their practice to enter the Army, Navy, Air Corps and so forth. They have given up their professional duties at home for "the duration" of the emergency. In the meantime some two thousand alien physicians have been admitted to licensure in this country, chiefly in the eastern states. It is said that nearly 4,400 such physicians have been licensed to practice during the last decade. Nineteen states require full citizenship before admitting a candidate to examination, and several states require that the alien physician complete a full year of schooling in an American medical school before he can apply for a license in that state. We are inclined to agree with the Missouri Congressman who said, "It is not fair to have our own physicians go to the front, only to have their practice taken by refugees from Europe."

Because of the activities of the Better Business Bureau, the "irregulars" among the drugless healers are quite uneasy these days. Several licenses have been revoked by the Indiana State Board of Medical Registration and Examination following hearing of charges filed by the Bureau. We are advised also that several other cases are to be heard in the near future. One chap whom we knew in medical school, in fact he was a member of our graduating class, long ago began flirting with the drugless group and in a short time had become closely identified with the naturopaths. It was said that he became a disciple of Hiel Crum, whose various licenses were revoked a year or so ago—the Marion Circuit Court later upholding the action of the Board. Just another example of a chap failing to make a "go" in legitimate practice, then turning into a "quack." No, it doesn't pay!

One of the outstanding features of the program at the annual banquet of the Indiana State Medical Association was the tribute paid to those in service by Dr. Larue D. Carter of Indianapolis. Physicians generally are not given to sentiment, at least outwardly, but they do not forget their "buddies" who have entered into the national scheme of preparedness in a most practical way. The little toast by Dr. Carter is so worthwhile that we present it herewith:

"In Indiana there are about 4,100 physicians. Over 260 of these physicians are now in various military camps. It should be borne in mind that the 4,100 includes, as Doctor Rankin has said, 51% who are beyond military age, those who are physically unfit, those who are not in practice, women physicians, and hospital interns. The 260 represents physicians who are young, who are physically fit, and who are professionally efficient. Mr. Hendricks has gone to the trouble to send out a questionnaire to the headquarters of each state medical association in the United States. We have received answers from twenty-one, which gives one a pretty good cross-section of the situation. It is interesting to know the percentage of doctors in service from the different states. It varies from ½ to 14%. The average is a little more than 6%. The average in Indiana is 6.5%. This showing should be very gratifying. It makes us feel that Indiana is a little above the average in supplying physicians in this emergency. While it is true that many of these young officers who have given up civil practice and gone into military service have encountered certain hardships and have made many sacrifices, yet, after all, such are the fortunes of war. We should not pity them, we should not feel sorry for them; on the contrary, we should congratulate them and laud them because they are young, because they are strong, because they are efficient, and because they have been chosen as essential aids in this great defense program. As these young officers come back to civil life they will be proud of honorable service. They will not say disgustedly, "I had to serve in the army"; rather they will say with pleasure and elation, "It was my privilege to serve with the military forces!" Those of us who are veterans of other wars are a bit jealous and envious of these young men. We wish we could turn back the clock a quarter of a century to other days, but that is not possible in human events. So to these young men from Indiana and from the whole United States, who are now in the military service, we send our best greetings and our most sincere congratulations. We wish you God-speed, and to you we hurl the torch for you to grasp and carry on!"

Convention Notes

Past Presidents, but going strong — *Officers' Conference* — *Discussing Medical Education* — *Why things clicked*

Herman Baker, Charles N. Combs, H. L. Murdock, C. H. McCaskey, A. F. Weyerbacher, M. A. Austin, W. D. Gatch, J. H. Weinstein, M. A. Austin, J. O. Ritchey, and C. N. Thompson.

The Council luncheon, which is held on the first day of the convention and is usually a veritable beehive of conversational activity, started off as a definite flop. "Rommy" opened the proceedings in his inimitable manner and promptly called for comment from members of that body and the Association officials. Mitch, Austin, McCaskey, Stump, Sensenich and Shank were mute as their names were called, and they all declared they had nothing to say. Later the reason for all this was discovered. "Mitch" was too much concerned about his task as head man at the impending first meeting of the House of Delegates and wanted to save his oratorical efforts for that event.

* * *

Austin had a carefully-rehearsed speech for use later on in the session and feared he might incorporate some of it in anything he might attempt to say impromptu.

* * *

Stump broke all legal precedents when he declined an opportunity to orate; gave no tangible reason therefor—and to date we have not learned of any.

* * *

McCaskey, having heard rumors to the effect that "the finger might be pointed toward him," deemed it wise to remain taciturn—and did.

* * *

Ross Sensenich had the most plausible excuse of all—he had neglected to bring his brief-case, and without that heavily-laden bag Ross is as mute as a healthy cricket in the winter season.

But Nafe came to the rescue—he seems to have borrowed Sensenich's brief case, only it is a bit larger than the one to which we are accustomed. Cleon held forth for a half hour or so, pausing only at Rommy's suggestion that the second half of his address be delivered to the House of Delegates.

* * *

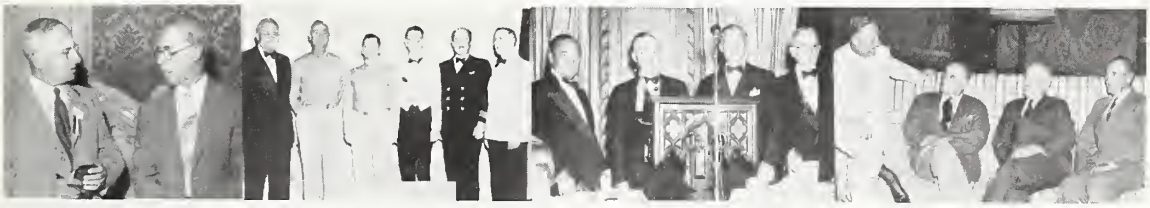
Later on in the Executive Session, so we are advised, the boys took off their coats and went to work for several hours. So, the Council continues to be the most deliberative body in Indiana Medicine.

* * *

"Rommy" had quite a workout in connection with his initial council session as chairman of that body. He found it necessary to call an Executive Session and we are advised, off the record, that this session was more than tepid.

* * *

George Dillinger, as usual, came up several days in advance of the convention so as to begin his "whispering" campaign for French Lick as the 1942 meeting place. The vote on this question was one of the surprises of the House sessions. Nothing much had been heard about the next meeting place, and on the morning of the final meeting of the House of Delegates it was generally supposed that Indianapolis would be chosen for 1942, in fact, when the matter was brought up one or two delegates spoke in favor of making the capital city the permanent seat of our conventions. But when the vote was taken, French Lick had an overwhelming majority. (Very much to our pleasure, for we like French Lick!)



Ye Editor and Dr. Elliott confer — *The military front* — *At the speakers' table* — *A good story—we hope*

E. M. Shanklin, J. C. Elliott, Larue D. Carter, W. S. Drysdale, Jesse W. Bowers, Glenn Ward Lee, J. C. McKitterick, Charles R. Bird, Fred W. Rankin, A. M. Mitchell, L. H. Bauer, M. A. Austin, Thomas A. Hendricks, A. F. Weyerbacher, C. H. McCaskey, and Cleon A. Nafe.

Women Physicians *Legislative Chairmen* *Councilors talk it over* *Card sharks* *Magicians*

Eleanor McIlwain, Jane Ketcham, Lillian Mueller, J. William Wright, Norman M. Beatty, E. H. Clauser, James White, W. H. Garner, Cleon A. Nafe, "Mickey" MacDougall, A. M. Mitchell, and Hubert Collins.

During the various sessions of the meeting it was noted that all in attendance became very serious when preparedness matters were under consideration. Strict attention was given to all that was said on this subject, doctors being well aware of the serious import such matters have in the profession. We are all much interested in impending Congressional legislation in this regard, knowing the important role the profession will be called upon to play.

* * *

For many years "Davy" Crockett barged into convention circles with what was generally termed his "convention hat." This was an old model, said to be contemporaneous with the original "Model T," but for 1941 he chose to make a change, strutting into the first session of the House arrayed in a gabardine ensemble that would well adorn the front page of Esquire magazine. And, as the days went on, "Davy" appeared in new raiment, forcing Bill Wright to hang out the white flag of surrender. In fact, the last day of the meeting, Bill, formerly the *Beau Brummell* of Hoosier Medicine, appeared in slacks!

* * *

Henry Waterson, business agent of the Lake County Medical Society, was all aglow over the reception of his exhibit which showed the activities of the most progressive county medical society in this part of the country. The exhibit was exceptionally well planned and received favorable comment from those who took time to look it over. One little feature of the exhibit was a line calling attention to the fact that this society has a personnel of ten full-time employes. This often was questioned by those looking over the exhibit—the idea of one medical society in Indiana having such a payroll! However, Waterson convinced every doubting Thomas, 'though at times he had to call in some Lake County member for confirmation.

Commercial exhibitors were in quite a dither on the pre-opening day. It seems that somehow or other exhibits would not fit into the spaces assigned them. We nosed about a bit and found the answer. A rule, yard stick, or what you have, was needed and Secretary Tom proffered the use of his pet measuring device, which commonly is called a "fisherman's" rule. This is a contraption used by the Blonde Senator in measuring the pier perch he is wont to catch up at Maxinkuckee. This rule, by the way, is a most clever device—so spaced that a five-inch pier perch takes on the size of a fourteen-inch bass. Once a proper measuring device was found everything went along smoothly and all exhibits were in their proper places on the opening day.

* * *

Beardsley, of Frankfort, was showing a newcomer of his town about the convention—Dr. Work, one of the Elkhart Works, a family well known in Hoosier medical circles.

* * *

We usually manage to find some one from the old Wild Cat neighborhood at these conventions. This time it was Charley Crampton of Delphi. Though not really a "Wild Catter," Charley came from the "Deer Crick" neighborhood, which is nearby. We talked about the early days in Carroll County when all events dated prior to or following the lynching of Amer Green.

* * *

Elliott, from up Gary-way, milled about the hotel and other frequented convention spots, regaling those about him with his inimitable chatter, but not one word did he say about the really big fish his wife caught up in Canada. This fish, so we are advised, stands a good chance to be accorded the champion wall-eye of the season. (For a good many years Elliott has strutted his fishing stuff before the Lake County medics—now he finds himself a poor second to the Missus.)

In the Scientific Exhibit

K. K. Chen, Frank Forry, Walter L. Bruetsch, C. N. Thompson, Henry W. Heine, Max Bahr, John H. Hare, Walter L. Bruetsch, John W. Ferree, J. M. White, Rollen Waterson, J. E. Ferrell, H. H. Wheeler, and O. D. Ludwig.

(Pictures submitted through the courtesy of the Indianapolis News, Times, and Star.)

Officers and Delegates

Standing: F. S. Crockett, R. L. Sensenich, A. F. Weyerbacher, Cleon A. Nafe, Norman M. Beatty, Don Cameron, George Dillinger, and E. M. Shanklin.

Seated: C. H. McCaskey, M. A. Austin, A. M. Mitchell, and F. T. Romberger.

Some of the boys from the hinterlands, towns such as Nashville and Muncie, wailed long and loudly about the convention operating on "fast time"; it made 'em get up too early and they were forever missing connections with the sessions and the committee meetings. Seemingly there still are a few Hoosier folk who cannot accustom themselves to "golfer's time."

* * *

Bob Masters groped his way into the room where the Conservation of Vision breakfast meeting was being held, and chairman Cy Rutherford made at least three attempts before he succeeded in getting Bob to respond to his speech assignment.

* * *

One of the Lake County boys tried to introduce a new form of cocktail during the convention, that of adding a generous portion of Tabasco sauce to his coffee; said it was a stunt he picked up at a famous Hammond fish restaurant, but the idea did not go over. Down-state Hoosiers could see no rhyme nor reason in it.

* * *

Jesse Bowers, late of Fort Wayne, but now a Colonel in the Medical Corps and stationed at Fort Harrison, took time out to run in for several of the sessions and to assist in guarding the door and the ballot box at sessions of the House of Delegates. He says he likes the army routine, and the Commanding Officer of the Post says that Bowers is quite busy, being at this time Chief Medical Officer of the Post.

* * *

We often were asked, "Where is Miss Toman?" Of course most of us knew that she had left The Journal staff some time ago, but we had rather hoped that she might find time to run up for the doings and renew old acquaintances. We were advised that she is quite busily engaged in setting up the new home in Atlanta, "Joe" all the while being concerned with a group of psychopaths in a government hospital in that city.

"Mitch" had the time of his career; had his own way about most things, talked when he felt like it, and ran the whole show in bang-up style.

* * *

The commercial set-up was the best we have seen in years; plenty of space for the "pitch men" and the visitors, exhibits of top-notch order, and there was a general good feeling all about the room.

* * *

The scientific exhibit was the "best ever." It was so arranged that viewing it was an easy matter, and many of the exhibitors were present to answer questions regarding the displays. There can be no doubt but that pathology is fast coming into its own.

* * *

Doctors and their wives still are interested in hobbies of various sorts as evidenced by the Hobby Show at the convention. One of the unusual exhibitions was that of five cages of fowl by Dr. King of Fort Wayne—ducks, chickens and Narragansett turkeys. An amusing incident in connection with Dr. King's exhibit was a misunderstanding regarding it which occurred over the telephone. Dr. Thompson, chairman of the Committee on Convention Arrangements, called the hotel to see whether there would be any objection to an exhibit of five crates of fowl, and in some manner the hotel management misunderstood and thought they were planning to exhibit five hundred chickens, but Dr. Thompson with his usual efficiency got the matter properly straightened out in a short time.

* * *

Other exhibits at the Hobby Show included needlework and oil paintings, these by both doctors and their wives; a quite extensive button exhibit; matchbook exhibit; stamp collection, and several groups of flowers and fruits. This is the second year we have had a Hobby Show, and we trust it will be continued for we believe it is the most interesting part of our convention.

Hobby Show Enthusiasts

Mrs. O. H. Bakemeier, Mrs. Robert M. Moore, and Mrs. Charles F. Voyles.

The Shelbyville Kennedys, Sam and Katharine, were on the job 'though Katharine did not show up on the opening day. She was, however, among those present for the remainder of the convention, so everything was Jake.

* * *

Many former convention attendants were missing, and their absence occasioned much comment from the "regulars." Among these were William Niles Wishard, long known as the "Grand Old Man of Indiana Medicine"; another was Tom Oberlin, a regular attendant for many decades—during most of those years a member of the House.

* * *

We are beginning to wonder whether it is essential for a president-elect of the A. M. A. to have a tic, and especially must the tic be connected with his glasses? Frank Lahey down at French Lick last year amused many in his audience by using the temples of his glasses to scratch his nose and ear, or other various diversions, and Fred Rankin showed up with the so-called shell glasses, with the half lenses known in the old days as "clergymen's glasses." While he did not use the glasses for scratching purposes, the unusual appearance of the combination attracted quite a bit of attention.

Where Doctor Rankin told 'em and Mickey wowed 'em

* * *

During MacDougall's demonstration of crooked dice, several members sitting about the banquet hall were industriously engaged experimenting with cubes of sugar, producing on four sides of the cubes the various concavities to which Mickey attributed some most unusual results in the use of dice.

* * *

In his demonstration of dealing bridge hands, Mickey proceeded to arouse suspicion in the minds of many of the sterner sex in the audience as to some uncanny endings of bridge hands, many men looking on past bridge games as if suspecting their wives of some sort of chicanery.

* * *

Mickey MacDougall's visit probably will result in the reformation of a lot of Indiana medics. He showed how easy it is to manipulate cards, dice, and other gambling paraphernalia to the best interests of the operator.

* * *

Cy Clark says that as far as he is concerned he is through, and that Mickey's visit should have a wholesome effect on the Indianapolis boys.

Our most amusing moment during the convention program was while sitting at the banquet table alongside a gentleman in a uniform of the United States Army. We had seen lots of uniforms during the afternoon and evening, hence were not uniform-shy. We noted the epaulets indicated that the wearer bore the title of colonel, in fact we had been introduced to the Colonel before going in to the banquet and had chatted with him for quite some time when we casually asked him, "Who is the commanding officer at Fort Harrison?" Without batting an eye the Colonel replied, "I am," whereupon we sank deeper into our chair and assumed our proper place.

* * *

The "lalapalouza" mentioned by Mickey in one of his stories is not new. Mark Twain in one of his books described a poker game in which a sophisticated former resident of Hannibal, Missouri, returned to his home town and engaged some of the natives in a poker game. Following a mysterious cut of cards, which he called a "Mississippi cut," he came out with a hand that could not be beaten. He did not show the hand but declared that it was unbeatable. The other players remonstrated, and were told that the hand was known as a "lalapalouza." When asked what that was, he replied, "I ain't allowed to tell."

* * *

Cleon Nafe had an idea—he invited Mickey to the Nafe home after the banquet and spent most of the night in trying to "learn how."

* * *

Harry Howard, hearing that Mickey had gone out with Cleon, hied himself up there but, try as he would, he could not induce Mickey to do a bit of teaching. Harry had the idea that if he could learn but one or two good tricks he would make it tough for Lake County medics.

* * *

Now a lot of Lake County men know how they lost considerable sums twice in the same year—in 1940; once when a cowboy crap shooter showed up at the annual picnic and later when "Rosy's" Gary friends took them for several hundred at the annual meeting.

* * *

George Dillinger averred that Mickey's remarks had no possible application to French Lick. George is a forehanded chap and did not want "Brown's" to suffer a lack of business, come next October.

The oldest County Medical Society Secretary

A state meeting or secretaries' conference really would not be a medical get-together if Dr. W. T. Lawson, of Danville, secretary of the Hendricks County Medical Society were not on hand. Dr. Lawson is, in point of years and in point of service, the oldest county medical society secretary, having served continuously since 1879 with the exception of three years when he served as president of the Society.

* * *

These Committee and House of Delegate breakfasts become monotonous—one knows well in advance just what is going to be set before him in the way of provender. Down at French Lick last year Herman Baker taught us a new trick, that of going into the main dining room to order just what we want and the way we want it, then trek over to the assemblage later with a feeling of having been well fed. Some day, some place, some chef is going to become famous for devising and serving a mass breakfast other than huge piles of toast, a strip of bacon, and eggs that have been "scrambled" in huge gobs in a baking pan.

* * *

Mickey's multiple envelope gives us an idea. Henceforth, when handing out the weekly alimony, we will fold it in the gadget Mickey passed around, give it to the Missus and dare her to get it. She will!

* * *

Considerable weather-grumbling was heard about the convention floors. As a matter of fact we should hold our Indianapolis conventions in mid-October, 'though this year we had to take the only available date—Indianapolis having become a real convention city. We heard one chap remark that the convention was misnamed and that it should have been called the "Laundrymen's Convention"; said he had changed shirts three times that day and was then on his way up to his room to see if he could find another.

* * *

"Cy Clark has been dethroned" was the cry that went up following the Council luncheon. For years Cy had been absorbing at least two full luncheon plates, in addition to helping himself to adjacent plates, and in all this time held the palm. But now comes a chap from up South Bend-way, named Ellison, who beats Cy "all hollow," as we used to say down in Wild Cat. Ellison, after he had been awarded the medal, stated that for some few years he had been quietly training for this thing and was quite elated to find himself possessing the new honor.

The chow line at the stag was exceptionally well handled, there being at least a dozen filling stations in the room and there was very little delay in piling one's plate to whatever height the diner might desire. As was to be expected, the beer was served in bottles. One old-timer sitting at a table across from us apparently did not enjoy his beer directly from the bottle and drank from a teacup. He remarked, "This is quite like old times, like during prohibition when they all drank from teacups."

* * *

Through a good many years we have been attending these annual conventions of the State Association, most of which have been held in Indianapolis. In that time we have made some observations on breakfasts, luncheons, banquets, and what-not, the perfect menu already having been discontinued. It seems that luncheons and dinners at the Shrine, the Cathedral and the Claypool invariably feature chicken, whereas the Indianapolis Athletic and the Columbia Club never fail to serve lamb chops at these functions. We wonder what has become of the filet mignon which used to decorate our banquet tables even in Indiana.

* * *

George Daniels' creaky knees resounded constantly throughout the second session of the House of Delegates. Way-back-when George learned two speeches which he has used at every convention since, one of which is "I second the motion," and the other is "I move that the nominations be closed and the secretary cast a unanimous ballot," whereupon the Blond Senator arose and mumbled a lot of unintelligible jargon, declaring so-and-so duly elected. A down-state delegate seemingly became tired of this continuous intonation of George's and the unintelligible chant of Secretary Hendricks and moved that the nominations be closed and the ballot cast by Miss Kribs, the assistant secretary, which she proceeded to do in a thoroughly businesslike manner, much to the discomfiture of Daniels and old "blue-eyes."

Trap and Skeet Shooters

R. H. Moser, H. M. Banks, H. B. Cox, H. C. Ragsdale, J. A. Sanders, T. W. Morris, and J. U. Dodd.

Karl Ruddell stated that Mickey destroyed beyond redemption one of the most popular pastimes of our annual meeting; said that every man would be suspicious of the other if they happened to gather around a green baize table.

* * *

We are still in a state of wonderment about Austin, President for 1942—can't "make him out." In past years it has taken a lot of adjectives to properly classify him; he was so effervescent, so irrepressible, so—what else should we say? Today he is quiet, almost to the point of taciturnity; talks only when he deems it most advisable and on those occasions is very careful in his choice of words. Can it be "his age," or does he realize that in a few months he will be "head man" of one of the best organized medical groups in the country?

* * *

We opine that Ferd Weyerbacher should have a title, that of Ambassador-at-Large-without-portfolio (alias brief case). Ferd manages to get around to all the sessions, committee doings and other functions, and seems to know all the answers when asked to give them.

* * *

The Credentials Committee "cracked down" on several who presented themselves for admission to the House of Delegates. Their names were not on the official lists due to the local secretary having been negligent in sending in such lists, or, in some instances, the duly elected delegate could not be present and had asked another member to represent him. The Committee demanded *evidence* in all cases before admitting the stranger within the inner portals.

* * *

("Drys" might well avoid this note.) Shades of Gambrinus! Draft beer seems to be taboo in Indianapolis hotels and restaurants. If one wants a bit of the foamy beverage he has to buy a bottle. Long time ago Ferd Weyerbacher termed draft beer "loose beer," which is about as good a name as any, we suppose. And speaking of Gambrinus, two Indianapolis doctors declared they had never heard of him—Gambrinus, the man who invented beer.

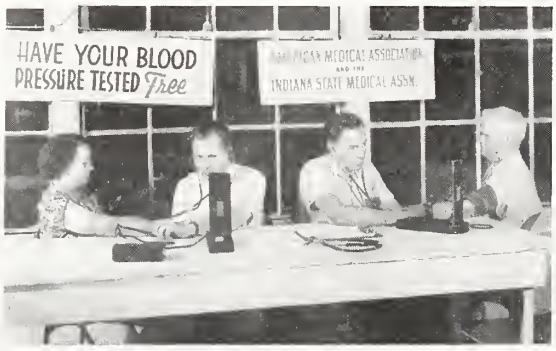
* * *

Jonathan Forman, editor of the *Ohio State Medical Journal*, came over to the meeting. Jonathan said he came to learn something, as did "Chuck" Nelson, the executive secretary. But, shucks! these chaps do not need much teaching, what with a marked improvement in the last few years in both their medical magazine and the *esprit de corps* in their state medical organization. Whatever their reason for dropping in, we were glad to see 'em. There is not enough of this interchange of visits between our neighboring medical groups.

STATE FAIR

RUSSELL SAGE, M.D.
INDIANAPOLIS

This year's attendance at the Exhibit sponsored by the Indiana State Medical Association at the Indiana State Fair eclipsed all records. A constant stream of interested visitors viewed the exhibits, had their blood pressure taken, and were tested on the depth perception machine, a machine to determine their visual fitness for aviation.



The featured displays were those on tularemia, cancer and food fads.

Many questions of a medical nature were written on slips of paper and deposited in a box by the visitors. These were sent to Chicago and were answered by mail by the American Medical Association.

Over 3,800 blood pressure recordings were made, the averages varying from 117/69 in the 15-20 year group to 154/83 in the group over 70.

Other exhibitors in the same building were the Indianapolis College of Pharmacy, Indiana Tuberculosis Association, Indiana State Nurses Association, American Society for the Control of Cancer, and the Indiana State Dental Association.

A member of the State Fair Committee was assigned to the exhibit each day to answer questions and assist in the examinations.

The blood pressure tests were taken by Malcolm Scamahorn, Vernon Kinzie and Warren Polhemus, who are students in the school of medicine. The depth perception machine was operated by Dr. Wilbur Smith.

President's Page

Dear Doctor:

Thanks to all the committees, the meeting in Indianapolis was complete in every detail.

The subject of "Procurement and Assignment of Doctors in the Defense Program" was discussed by the House of Delegates. They decided that when and if such a law was passed the Council of the State Association should handle the situation, and I believe that when the time arrives the Council will handle the problem efficiently and satisfactorily.

Through the state office each county society has received *Bulletin* No. 1 from the Council on Medical Defense. This outlines the part the medical profession will have in civilian defense. Each county society should consider this matter carefully so that when the county organization is perfected the doctors can immediately step into the picture prepared to do their part.

The Gross Income Tax Division is exhausting all sources of information to check up your gross income tax returns.

Last week the President stated that the Federal Government was going to do something to rehabilitate about 200,000 men rejected for the armed forces by the Selective Service Boards. What method will be used I do not know, but watch for developments.

The subject of "Nutrition" is still being pushed as having a big place in the National Defense.

Very truly,

MEMENTO OF THE OLD CONSTITUTIONAL ELM PRESENTED TO THE INDIANA STATE MEDICAL ASSOCIATION

A historical phase of the convention, one that means much to those who are interested in the early history of the state, was the presentation by Dr. William E. Amy of Corydon, of a gavel, the head of which was made from a piece of the old Constitutional Elm. Dr. Amy gives the following history:

HISTORY OF THE CONSTITUTIONAL ELM

Delegates gathered at Corydon in the newly-built Harrison County State House in June, 1816, found the early summer days very warm for the constitutional deliberations in which they were so deeply absorbed. Finally, they shed their coats and moved out into the shade of a magnificent elm a few hundred yards away.

For nearly three weeks these clear-minded, unpretending Hoosiers labored at the forming of a constitution for the new State of Indiana. For nearly three weeks — so the legends say — the boys and girls of the little town sulked because they were deprived of their favorite playground in the shade of the wonderful elm while the delegates deliberated. This great tree with its vast rounded crown was, when in full leaf, one hundred thirteen feet in one diameter and ninety-seven in the other. Its trunk, which still stands beneath a sturdy limestone shelter house, is about thirteen feet in circumference.

When disease assailed the tree several years ago, the members of the local chapter of the D.A.R.—The Hoosier Elm Chapter—did all they could to save it, but in spite of spraying and expert surgery the tree slowly perished.

Old State House As It Was Originally

Old Constitutional Elm

The wood from the tree has been fashioned into many kinds of novelties, of which gavels are the most popular. In order to make these gavels even more historic in character and to give then an even stronger savor of Harrison County, the handles are made of wood from the old apple trees which William Henry Harrison planted on his farm a few miles west of Corydon.

The former gavel that has been used for the last few years was given to the Association by Dr. L. P. Harshman, of Fort Wayne, on September 24, 1930. Now the Association has two gavels which may be used for the meetings of the House of Delegates and the Council.

Gavel Presented Indiana State Medical Association

KNOW YOUR MEDICAL HISTORY

EDGAR F. KISER, M.D.*
INDIANAPOLIS

A welcome newcomer to the Scientific Exhibit of the Indiana State Medical Association at the last meeting was that of the Indiana Association of the History of Medicine, a constituent of the American Association. Still in its swaddling clothes and with a membership of just above twenty, the local organization is making a strenuous effort to enlist the interest of physicians and laymen throughout the state in the study of medical history. Every keen observer will note the renaissance of interest in the subject. Nearly every new textbook of medicine incorporates a short history of the particular branch of which it treats, and the books on the subject are legion. The lay public has shown a remarkable interest in the numerous biographies and autobiographies of physicians that have flooded the literary market during the past few years, and many manufacturing pharmacists have used items of medical-historical interest to attract attention to their wares.

Membership in the Indiana Association is open to physicians and laymen, the only qualification being an earnest interest in the subject. Meetings are held quarterly and the dues are nominal.

The exhibit of the Association was quite out of the ordinary and attracted not only a great deal of attention, but also created a great deal of favorable comment. It consisted of a series of questions on The History of Medicine in Indiana. These questions were printed in large type on neatly prepared hinged cards, and by lifting the upper card the answer to the question was revealed.

The questions are herewith appended, and the answers will be found on page xxviii. Look over these questions and answers and see what you know about matters of historical interest in our good old Hoosier State.

1. What great event is commemorated by Weir Mitchell in his poem entitled, "The Birth and Death of Pain"?
2. If you want to read a real thriller, what trial involving the murder of a Boston Physician by a Harvard Professor of Chemistry would you turn to?
3. What pioneer experimental physiologist working in the primeval forests of Michigan furnished the foundation of modern dietetics?
4. What American physician has achieved greatest pre-eminence in the two fields of medicine and literature?
5. Whom does Garrison name as the greatest physician of the West and one of the most picturesque figures in American medicine?
6. Which was the worst of the diseases with which the pioneer residents of Indiana had to contend?
7. What Indiana physician is recorded in the Annals of Medical History as the first to perform cholecystotomy for gallstones?
8. What young physician living in Indiana boasted that before he died he intended to build a city, found a college, be Governor of a State, go to the United States Senate, make himself famous and amass a fortune—and more?
8. Why may Hoosiers be particularly proud of the library of the Surgeon-General's Library?
10. What doctor was "The most useful citizen that the state of Indiana has ever possessed?"

* Historian of the Indiana State Medical Association.

ABSTRACTS

TELLS OF SYMPTOMS OF SPINAL ABSCESS

A sequence of symptoms and signs important in arriving at the early diagnosis of acute spinal epidural abscess are outlined by Saul Boharas, M.D., and Y. D. Koskoff, M.D., Pittsburgh, in *The Journal of the American Medical Association* for September 27.

The two men say the condition is a disease which is rarely diagnosed before the onset of irreparable damage to the spinal cord and that the true nature of the process is often discovered only at postmortem examination.

"The diagnosis," they say, "is easy to make if the following sequence of events is considered: (1) a history of preexisting infection or spinal trauma; (2) a latent period between this and the time of onset of pain; (3) the development of severe pain in the back, signs of acute infection and spinal tenderness; (4) a latent period between the pain in the back and the onset of neurologic signs and symptoms, and (5) the development of signs of involvement of the cord or meningitis and symptoms leading to paralysis or meningitis."

REPORTS NEW OPERATING PROCEDURE FOR ACUTE MASTOIDITIS

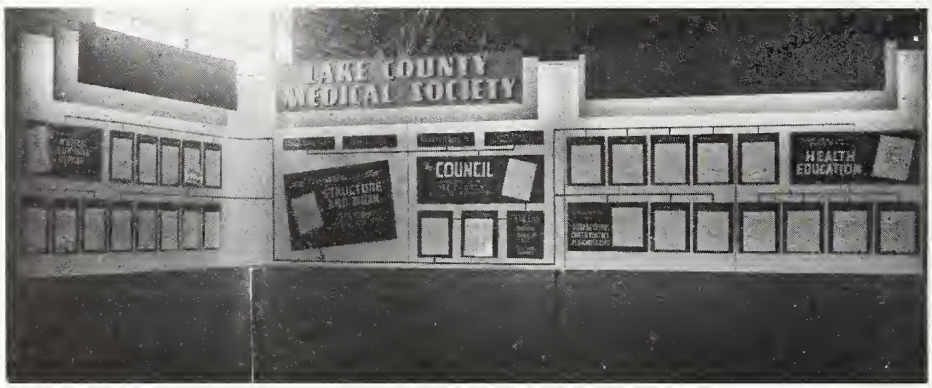
A new procedure in the operation for acute mastoiditis wherein sulfanilamide or sulfathiazole crystals are placed in the cavity after the operation and the wound then tightly closed instead of the usual procedure of leaving therein a rubber drainage tube, is reported in *The Journal of the American Medical Association* for September 27 by George S. Livingston, M.D., Chicago.

The procedure was used in 13 cases, he says, and the experience gained "shows that it is entirely feasible to close a mastoid wound without drainage if the cavity is filled with sulfanilamide or sulfathiazole. In nearly all the cases the wound healed in a remarkably short time and the long tedious period of dressings was eliminated. The absence of local inflammatory reaction indicates a prompt elimination of infection and also that the drugs have no adverse effect on the tissues. . . ."

Dr. Livingston says there was no significant difference between sulfanilamide and sulfathiazole but that future experience may favor the use of some of the more recently synthesized sulfonamide compounds.

ATTRACTIVE EXHIBIT SHOWS ACTIVITIES OF THE LAKE COUNTY MEDICAL SOCIETY

ROLLEN W. WATERSON*
GARY



The Exhibit of the Lake County Medical Society that was shown at the annual meeting of the Indiana State Medical Association was not designed for the attention of physicians but for the information of the lay public in Lake County. It is labeled "An Exposition of the Structure and Work of the Lake County Medical Society," and, thus far, has been exhibited at one of Lake County's hospitals and at the Lake County Fair. The exhibit is collapsible and may be transported in an automobile.

It was not expected that many observers would stop to read all of the exhibit's thousands of words outlining the activities of the four branches of the Lake County Medical Society, its seventy-three working committees, officers, council, two business offices, and ten full-time lay employees. It was intended, however, to leave an impression with anyone who glanced at the exhibit as to the size, the achievements, and the importance of this organization to Lake County's heterogeneous population—one of the county's most vital institutions, its County Medical Society. Our Committee on Exhibits wanted to make everyone, even if they merely paused before the exhibit, conscious of the fact that in Lake County the medical profession is carefully, democratically, and strongly organized for the protection of both the profession and the public.

The exhibit's title card extends an invitation to the observer to "explore the structure of the Lake County Medical Society," to "start here and follow the red line and learn what each of its committees and agencies contribute to the achievements of organized medicine in Lake County." Those who accepted this invitation learned that the society has four major geographical branches which have representatives on the Council or the Board of Directors of the Society. They found that the society has two large, well-equipped offices, one in Gary and another in Hammond, and that ten full-time employees staff these offices. It is shown that careful attention is given to the economics of medicine and that besides a guarantee of medical care to people of every economic group the society offices also serve as medical and dental credit exchanges and collect medical accounts from those who are able to pay but who do not pay their doctor bills unless they are forced to do so.

Other cards in the exhibit outline the work of the committees on indigent medical relief, distribution of medical care (health insurance, etc.), scientific programs and postgraduate education, mental hygiene, child welfare, military preparedness, public health, hospitals, public nursing, first aid (civilian defense), industrial health, tuberculosis, cancer control, poliomyelitis, membership, and physicians' welfare. Another section deals with lay health education and includes the work of subcommittees in each branch on the society's radio programs, newspaper relations, exhibits, and the Speakers' Bureau. It is further shown that the Society publishes a monthly bulletin, *The Lake County Medical News;* that the Society is conducting a venereal disease control program in cooperation with the Indiana State Board of Health; and that a blood-group registry is maintained, etc.

Thus, a great deal of information explaining the Lake County Medical Society and its accomplishments is presented for the information of those who will pause to peruse the outlined material which answers almost any question that a layman might have regarding the Society. As stated above, the purpose of the exhibit is to make an immediate impression on the casual lay observer as to the size and strength of the Society, and the intelligent manner in which the great responsibilities of the medical profession are handled.

The Lake County Medical Society was honored in being invited to show this exhibit at the annual meeting of the Indiana State Medical Association.

* Executive Secretary of the Lake County Medical Society.

NEW MEDICAL AID PLAN FOR NEEDY AGED, NEEDY BLIND, AND FOR DEPENDENT CHILDREN

VIRGIL SHEPPARD*
INDIANAPOLIS

John Jones is one of the 120,000 persons in Indiana who receives public assistance under the terms of the federal Social Security Act and the Indiana Welfare Act, through which monthly cash payments are made to the needy aged, the needy blind, and to dependent children in homes of certain specified relatives. John is sixty-eight years of age. He has been receiving old age assistance through his county welfare department for two years. The size of his monthly assistance check from the county welfare department has been determined by what are considered to be his necessary expenditures for food, clothing, shelter, fuel, utilities and other items. Because his health has been good in recent years he has had no expense for physicians' care. But recently John has been "poorly"; he needs medical attention. Under the terms of existing effective legislation, John could call or go to the trustee in the township in which he lives and ask that medical service be provided for him, or he could ask the county welfare department to increase his monthly award so that he might pay a physician of his own choice the cost of any medical aid given to him. The county welfare department, after verification of the amount of the medical cost, could, if it desired, increase the award.

In many counties of the state the John Joneses would have to rely upon the township trustees for any necessary medical expense because the local welfare department has a policy of not allowing for such expense. But on January 1, 1942, John Jones' medical problems will take on added significance so far as he himself and the township trustees, county welfare department officials, doctors, dentists, hospitals and other people in allied professions are concerned. First of all, for the needy aged and the needy blind individuals the Indiana legislature has made it possible for a county welfare department to award up to forty dollars a month rather than to pay thirty dollars for the necessary expenses, and in addition the legislature, in order to provide necessary medical care, has provided that the county welfare department can spend *more than* the forty dollars a month for the needy blind or aged person, or above the maximum allowed by law for dependent children. By so doing, the legislature has made available, in effect, additional federal and state funds to finance such care.

The township trustee can still pay for John Jones' medical care after next January first if he so desires, or if it is the better plan locally to do so. However, such expenditures would continue to be paid entirely out of local property taxes. If the county welfare department assumes the medical aid expense, at least sixty per cent, and under certain circumstances eighty per cent, of the cost will come out of state and federal funds.

The new legislation has made it necessary for the state and county departments of public welfare (under the law the state welfare department acts as a supervisory agency to the ninety-two county welfare departments) to formulate plans for the purpose of setting up sound and effective procedures for the administration of medical aid to the 120,000 public assistance recipients, so as to give to the recipients the best possible care at not too great a cost to the taxpayers and to prevent duplication on the part of local welfare and relief agencies. Also, plans are necessary to prevent abuses which in the past have affected medical aid programs. Consequently, the State Department of Public Welfare has established an Advisory Committee on Medical Aid, composed of representatives of various state-wide organizations interested in this field of public welfare. Members of the Advisory Committee and the groups which they represent are as follows:

Dr. John Leffel, Connersville, representing the Indiana State Medical Association;
Dr. Edward Mitchell, Indianapolis, representing the Indiana State Dental Association;
Mr. Kiefer Elliott, Sheridan, representing the Indiana Pharmaceutical Society;
Mrs. Harold Lurie, Clinton, representing the public;
Mr. Clarence Hess, Indianapolis, representing the Indiana State Hospital Association;
Miss Beatrice Short, Indianapolis, representing the Indiana State Nursing Association;
Dr. John VanNuys, representing the Indiana University Hospitals, and
Dr. John Ferree, representing the Indiana State Board of Health.

After a series of meetings this committee formulated and recommended for use a set of basic principles and standards to be followed by the ninety-two county departments of public welfare in planning their medical aid programs. The State Board of Public Welfare adopted these principles and standards, which are printed at the close of this statement. The code provides for the development of local plans for medical aid administration through the establishment and use of county advisory committees, composed of representatives of local health interests. Each county welfare department desiring to supply medical aid to its recipients will establish a local advisory com-

* Director, Division of Public Assistance, State Department of Public Welfare.

mittee representing doctors, dentists, nurses, pharmacists, hospitals, township trustees and other groups. It is expected that in each county of the state where there is a county medical society the society will give immediate cooperation to the establishment of an advisory committee and will assist the committee in counseling the county welfare department on the formulation of the local medical aid plan. The presidents and secretaries of county medical societies already have received more detailed information about the medical program.

There are very few limitations upon county welfare departments in the development of the local medical plan other than that they must recognize the principles and standards formulated by the State Advisory Committee and adopted by the State Board of Public Welfare. There is great flexibility in the elements of a local plan. For example, under the terms of the legislation and the established principles and standards it is possible for a county welfare department to provide a free choice of physicians on the part of all recipients of public assistance, or to restrict the choice to a number of designated physicians. Further, the recipients can be given an increase in the monthly cash award so that they can pay their own medical bill or the county welfare department can pay the doctor, the hospital, the dentist, etc., directly, just as the township trustee does, for services provided to the recipients.

This factor, however, is important. The federal government will not pay its fifty per cent of the cost of medical care to a recipient in the event professional persons and organizations are paid directly by the county welfare department. Federal reimbursement is limited also to fifty per cent contributed on each monthly award up to the maximum of forty dollars a month for the aged or blind person, eighteen dollars a month for one dependent child and twelve dollars a month for each additional dependent child. Also, when John Jones' award is increased to provide for medical expense, the county welfare department, under the terms of the Social Security Board's interpretation of the law, cannot place any restriction upon him as to how he spends his money, as to what doctor he uses, and cannot in any way threaten to reduce his award if he fails to pay his medical bills. Back of this is the philosophy that an administrative agency under a democratic form of government has no legal right to tell a recipient how to spend his cash. If he is incapable of handling his money, only the judicial branch of the government can take away this right by the appointment of a guardian. However, a county welfare department in its plan can provide for direct payment to physicians and thus place almost any kind of control over the recipient's medical program. In this event the cost out of county property tax will be forty per cent of the total cost rather than twenty per cent, and the cost out of state funds will be sixty per cent rather than thirty per cent.

What the local plan should provide in the way of physician selection, method of payment of medical bills, use of local health facilities as against state health facilities and in the way of many other details depends upon local circumstances. The objective is to produce the best possible plan by agreement among those who will be providing the medical services and the officials of the county welfare departments in cooperation with other welfare and relief agencies, such as the township trustees. Only through such a process can the needy be assured of medical aid to the extent that the government can provide it and at the same time the interests of those providing the services and the taxpayers be protected.

PRINCIPLES AND STANDARDS FORMULATED BY STATE ADVISORY COMMITTEE ON MEDICAL AID AND APPROVED BY STATE BOARD OF PUBLIC WELFARE

PRINCIPLES

1. Medical aid should cover all aspects of health service, including medical and dental services, nursing and hospital care, pharmaceutical supplies, and special appliances when considered necessary to meet the health requirements of the individual.
2. Medical aid should not be limited to emergencies only, but a long view should be taken of medical problems to the end that preventive measures and rehabilitative possibilities are not overlooked.
3. Those dealing with medical problems should not be expected to provide all services without pay, but charges should be made within reason and commensurate with services rendered.
4. The public assistance program, aimed as it is at the preservation of human values, should give recognition to the health requirements of the individuals served, and necessary medical care should be recognized as one of the essentials that should be furnished along with other necessities, such as food, clothing, and shelter.
5. Local plans based upon state standards, rather than one state-wide plan for the extension of medical aid, should be developed to the end that each county may have a plan that is best adapted to its particular situation, and to the end that local facilities be used when they contribute to the best interests of the recipient.
6. Certain standards relating to the administration of medical aid by county departments of public welfare should be established by the State Department of Public Welfare to the end that state supervision and local administration may be effectively merged in a careful utilization of federal, state, and local monies.
7. The medical aid program of every county department of public welfare should be supple-

mentary to and involve proper and full utilization of all existing medical facilities, federal and state, as well as local tax supported and voluntary institutions.

8. State and county advisory committees representative of the various health interests in the community can materially increase the effectiveness of medical aid programs.
9. Budgeting and control of medical care expenditures by the agency providing funds for the care is essential to sound administration.
10. Where a review of decisions and actions on an individual case is indicated, such review shall be made a cooperative effort on the part of the agency and the professional group involved.
11. Public officials and those participating in the medical aid program should recognize the value and essential need of detailed written agreements wherever practicable, which state clearly the responsibilities to be undertaken by each, as well as procedural and financial provisions involved.
12. Medical aid records as an aid in the periodic evaluation of whatever medical aid plans are developed should be established and maintained to the end that sound analysis of the value and cost of the medical program can be made, and to the end that the needs of the recipients may be adequately and economically met.

STANDARDS

1. Each county department, before extending medical care to public assistance recipients, under Chapter 142 of the Welfare Act of 1941, shall develop a plan for the provision of such care and shall submit it in writing to the Division of Public Assistance for review and approval prior to January 1, 1942. If plans are not submitted by that time, they shall be submitted for review and approval prior to their installation at a later date. Any major changes in the plan subsequent to approval by the Division of Public Assistance shall be inaugurated only after re-submission to and approval by the Division of Public Assistance.
2. The Statement of General Principles prepared and submitted to the county departments by the State Department of Public Welfare is to be used as a guide in the development of medical aid plans by the county departments and in the approval of such plans by the Division of Public Assistance.
3. Use of an advisory committee representative of health interests in the county is considered as a necessary part in the development and administration of all medical aid plans.
4. All medical aid plans developed by a county department shall give as full recognition to all existing medical facilities, federal and state, as well as local tax supported and voluntary institutions, as is compatible with the best interests of the recipients needing care.
5. Provisions shall be made in the plan for the preparation by the county department of written statements of all medical policies and procedures, contracts, price schedules, etc., and copies of all such material shall be made available to all participating professional personnel or vendors, to the county staff, and to all cooperating agencies or institutions in any way involved in the local medical program.
6. All plans shall include a written statement covering the method of authorizing medical assistance and the method of payment; that is, whether payments will be made by increase in the monthly grant to the recipient, by payment directly to the person or agency rendering the service, or by a combination of methods.
7. The system of medical aid records prescribed by the State Department of Public Welfare shall be established and maintained to assist in periodic re-evaluation of the program.

TWENTY-FIVE YEARS AGO

[*From THE JOURNAL pages, November, 1916 issue*]

Dr. John A. MacDonald, Indianapolis, had recently been married.

* * *

Dr. Cecil C. Kimmel, of Fort Wayne, had died from typhoid pneumonia.

* * *

The new addition to Holy Family Hospital, at LaPorte, had been completed at a cost of $34,000.

* * *

The editor commented on a gift of twenty acres of land in Brookline, Massachusetts, to be used as a site for the erection of a resort for the "so-called sick."

The Mississippi Valley Medical Association had just concluded a very successful meeting in Indianapolis.

* * *

The Clinical Congress of Surgeons, at its Philadelphia meeting, had voted against any form of division of fees.

* * *

The fees for medical services, as allowed by the State Compensation Board, continued to afford material for discussion although the editor opined that these fees "were getting better" as time went on.

The Vanderburgh County Medical Society had gone on record as having approved the patients' choice of physician in industrial cases.

* * *

Methodist Hospital, Indianapolis, had just completed a new addition at a cost of $125,000.00. Each floor of the new wing had its own diet kitchen.

* * *

The Third District Medical Society had held its annual meeting at French Lick. The program was of unusual merit, and there was a large attendance.

* * *

The high cost of living came in for a panning by the editor, the increase having amounted to something like 33⅓ per cent, according to the editor.

* * *

The Pulaski County Medical Society had held a well attended meeting at Winamac, Dr. Will Shimer, of the State Laboratory, having been featured on the program.

* * *

We note that in the advertising section a full-page ad. was carried by the Frank S. Betz Company, of Hammond, showing the heat appliances so long featured by this firm.

* * *

Rilus Eastman wrote on "Military Surgery"; Lee Nusbaum, of Richmond, talked about "The Doctor as a Community Asset"; and Murray Auer held forth on "Family Spastic Paraplegia."

* * *

There was quite some discussion as to the duties of the new Executive Secretary provided for by the action of the House of Delegates. No choice had been made as to that official, but a good many doctors seemed to want to know just what would be the duties of this new official and whose work, if any, he would take over.

* * *

Editorials discussed Infantile Paralysis and the need for a new medical building at the Medical School. The editor, in his inimitable style, attacked what he deemed quite a problem, "Dirty Doctors and Dirty Offices of Doctors." (In the past forty years we have seen some offices that might be talked about, but we never had the nerve to do it.)

* * *

The presidential address of Dr. George F. Keiper, of Lafayette, occupied the first place in the scientific section of this number. Like many other Hoosiers, he had never seen Indiana and his official duties took him into scenic beauties he never before had met. He also bemoaned the fact that medicine was no longer a profession; it was a business. (Certain Federal Courts have gone even farther, calling it a trade!)

UNDER THE CAPITOL DOME

INDIANA STATE BOARD OF HEALTH LABORATORY GIVEN HIGH RATING

The laboratory of the Indiana State Board of Health was given top rating by the Committee on Evaluation of Serodiagnostic Tests for Syphilis when the results of the 1941 tests were announced recently. This committee is headed by Dr. Thomas Parran, Surgeon General of the United States.

The Indiana laboratory, long recognized for its efficiency, is now properly housed in the new Indiana State Board of Health building, which is one of the best structures of its kind in the country. Dr. Clyde G. Culbertson is director. Not only has the laboratory kept itself at top notch efficiency, but it has been instrumental in keeping private laboratories in a high state of efficiency and accuracy in serological tests. The State Board of Health laboratory sends out test specimens approximately once each month as a means of checking the efficiency of the private laboratories.

In conducting the survey of efficiency of state health department laboratories, the Committee on Evaluation of Serodiagnostic Tests for Syphilis submitted identical whole blood specimens collected from 230 syphilitic donors and 132 presumably nonsyphilitic donors. Similar specimens were tested in the laboratories of a control group comprising Drs. Harry Eagle of Baltimore, William A. Hinton of Boston, Reuben L. Kahn of Ann Arbor, Mich., Benjamin S. Kline of Cleveland, and John A. Kolmer of Philadelphia. The Venereal Disease Research Laboratory of the Public Health Service was referee in the matter of the suitability of each donor for the purpose of the study.

The Indiana State Board of Health laboratory made one of the highest ratings, both for detecting the presence of the reacting substance and the ability to exclude the presence of the reagin from nonsyphilitic specimens.

One of the Indiana Board of Health laboratory experts, Dr. L. Y. Mazzini, has developed his own serological test for syphilis. He went to Washington on October twentieth to participate in an "originators' survey" called by Surgeon General Parran. The originators were given an opportunity to run specimens according to their own tests for the purpose of determining their relative values. Success in the "originators' survey" is expected to result in the adoption of new methods as standard tests. Dr. Mazzini has been at work for some time developing his method at the State Board of Health laboratory.

Correction: Robert B. McAlpin, of Greenwood, whose license has been revoked by the Indiana State Board of Medical Registration and Examination, was erroneously listed as a Naturopath last month. He was an M.D.

Enforcement of the marijuana eradication program has been assigned to the Indiana State Police Department by Governor Henry F. Schricker. Don F. Stiver, superintendent of the police department, was instructed to assign detectives to the work. The marijuana eradication and control work previously had been maintained by the Indiana State Board of Health through a Marijuana Bureau, headed by Gene Ryan. The 1941 session of the Indiana General Assembly failed to appropriate funds to carry on the program. Governor Schricker took action in the situation after several church and women's organizations had insisted that the work be carried on.

PROGRESS MADE IN NUTRITION PROGRAM BY STATE NUTRITION COUNCIL

Dr. John W. Ferree, secretary of the Indiana State Board of Health, who is serving as chairman of the State Nutrition Council, reports that the Council is rapidly swinging into its work. A program is being developed on the basis of studies of needs and resources throughout the state. However, work of the organization is as yet in the formative stages. The studies were conducted by members of the Advisory Committee of the Council.

"Despite the feeling of some members in the medical profession that nutrition is not a problem, the studies and surveys indicate that it is of considerable importance in certain areas and population groups," and "Most of us can improve our dietary habits to a good advantage," Dr. Ferree said.

He also stated that the actual program of the State Nutrition Council will be closely tied in with local defense councils, and the activities will not make necessary the creation of new local organizations.

The Council is hoping to develop a nutrition program that will have permanent value and will carry on long after the present defense emergency, which brought it about, is over. The Council expects members of the medical profession to tie in with activities sponsored by the nutrition group, and the medical men can be of great assistance in their own local communities, Dr. Ferree said. Although the program is still in a preparatory stage, it has already been planned to utilize to best advantage all the facilities now at hand, including the public school lunch program, the stamp plan for distribution of food, and any other existing agency that can be worked in, Dr. Ferree said. Classes will be inaugurated at which women will be taught how to purchase and prepare food, and how to budget the family income in relation to food.

When the program is rounded out it is expected that it will prove to be not only a valuable defense project but a lasting program that will be of substantial value to the state, Dr. Ferree said.

Deaths

Nellie E. Green, M.D., of Fowler, died at her home September third. She was ninety-eight years of age.

Emma Whitson Moore., M.D., of Kokomo, died in September at the age of eighty-three. Doctor Moore was a graduate of the Woman's Medical College of Pennsylvania, Philadelphia, in 1891.

Eilau Vance Boram, M.D., of Muncie, died at his home on September twenty-eighth, aged sixty-four. Doctor Boram was a graduate of the Medical College of Indiana, Indianapolis, in 1898. He was a member of the Delaware-Blackford County Medical Society, the Indiana State Medical Association, and the American Medical Association.

Curtis C. Hamilton, M.D., of Linton, aged fifty-seven, died at Ann Arbor, Michigan, on August thirtieth following a five-month illness. He graduated from the Eclectic Medical College, Cincinnati, in 1908. He was especially interested in surgery. Doctor Hamilton was a member of the Greene County Medical Society, of the Indiana State Medical Association and of the American Medical Association.

News Notes

Dr. L. H. Hopkins, formerly of Greensburg and Versailles, has moved his offices to Connersville.

* * *

Dr. H. D. Cogswell, formerly of Tucson, Arizona, has become associated with the Whiting clinic, Whiting, Indiana.

* * *

Dr. Eugene Schumaker, who has been practicing at Fontanet, Indiana, has moved his offices to Rensselaer.

* * *

Dr. Russel J. Rossow, formerly of Mabel, Minnesota, is now in the office of Dr. H. K. Stork, of Huntingburg.

* * *

Dr. George G. Morrison, who has been practicing in Boswell for the past two years, has moved his office to Portland, Indiana.

* * *

Dr. Hugo W. Eikenberry, of Peru, was recently appointed by Governor Schricker as a member of the State Board of Medical Registration and Examination.

Dr. W. E. Ticen, recently of New Castle, who for seventeen years practiced medicine at Mooreland, has moved to Shirley.

* * *

Dr. Carl P. Huber, of Indianapolis, was recently re-elected assistant secretary of the Central Association of Obstetricians and Gynecologists.

* * *

Dr. D. F. McGuire, of Indiana Harbor, has recently been elected president of the East Chicago chapter of the Infantile Paralysis Foundation.

* * *

Dr. W. C. Kelly, formerly of Indianapolis, has moved to Washington, Indiana, where he will be associated with Dr. H. C. Wadsworth.

* * *

Dr. J. P. Gilliatt, of Allendale, Illinois, has become associated with Drs. J. I. Mitchell and I. E. Huckleberry at Salem, Indiana.

* * *

Dr. E. B. Steele, formerly resident physician at Ball Memorial Hospital, Muncie, has joined Dr. J. W. Iddings and Dr. J. P. Birdsell at Crown Point.

* * *

Dr. Harley F. Flannigan, of Lagrange, has been elected county health commissioner to succeed Dr. Morse F. Nichols of Topeka, who is moving to Warsaw.

* * *

Dr. C. P. Anderson, of Durham, North Carolina, has been appointed medical director of the school health department of Gary, succeeding Dr. O. B. Nesbit, who has retired.

* * *

Dr. A. Loyal Crane, formerly with the Evansville State Hospital, has opened a private hospital, "Clearview," for patients suffering from mental and nervous disorders, at Evansville.

* * *

At the twenty-eighth annual meeting of the Mississippi Valley Sanatorium Association, held in Columbus, Ohio, on October third, Dr. Frank L. Jennings, superintendent of the Marion County Tuberculosis Hospital, was elected president for the coming year.

* * *

Dr. Robert C. Heasty, formerly of Louisville, Kentucky, is locating in Michigan City, taking over the practice of Dr. Harry A. Briggs, who has moved to Corpus Christi, Texas, for permanent residence. Dr. Heasty will also serve as examining physician for the local Selective Service Board.

Dr. Gustavus A. Peters, of Franklin, Indiana, and Miss Hilda Hartman were married October tenth at Rochester, Minnesota.

* * *

Dr. George W. Bean, who has been on the staff of the Veterans' Hospital at Marion since 1931, has been advanced to the position of clinical director, succeeding Dr. W. M. Bevis, who was transferred to Murfreesboro, Tennessee.

* * *

Dr. Donald E. Bowman, Ph.D., of Cleveland, Ohio, has been appointed assistant professor of biochemistry, at Indiana University School of Medicine, to fill the vacancy caused by the retirement of Dr. B. B. Turner.

* * *

The Indiana Association of the History of Medicine held a meeting Monday evening, September twenty-second, in Hurty Hall, of the Indiana State Board of Health building, at which Dr. Thurman B. Rice presented "The Story of Indiana Public Health," illustrated by pictures.

* * *

The Monroe County Ministerial Association has, in a published letter, expressed its appreciation of the work of the Monroe County Medical Society in their efforts to immunize all the children in the county against diphtheria, especially since the doctors are carrying on this work free of charge.

* * *

Dr. Herald R. Cox, a native of Rosedale, Indiana, but now of Hamilton, Montana, was recently awarded the Theobald Smith medal and a $1,000 prize, by the American Association for the Advancement of Science, for his original work in cultivating the germs of Rocky Mountain spotted fever, typhus, and other highly virulent diseases. Dr. Cox is only thirty-eight years old, and this honor is one of the highest given for research work in medical science.

* * *

Eighty-eight schools of nursing have been selected by the United States Public Health Service to receive Federal aid in training additional student nurses. Sixty-seven schools in thirty-two states will offer refresher courses to 3,000 graduate nurses and twenty-six schools will enroll 500 graduate nurses for post-graduate study. A total of $1,200,000 is available for the program, which includes field training centers for public health nursing.

The Indiana schools that have been selected are The Ball Memorial Hospital School of Nursing, at Muncie, and The St. Elizabeth Hospital School of Nursing, at Lafayette.

Dr. E. C. McBride, of Terre Haute, has been named chairman of the Selective Service System's Sixth District Medical Advisory Board.

* * *

At a meeting of the Indiana Medical College, School of Medicine of Purdue University Alumnae Club, held at the Claypool Hotel in connection with the convention of the Indiana State Medical Association, the class of 1907 elected Dr. Ada E. Schweitzer, Indianapolis, life president, secretary and treasurer. This honor was awarded for her service in the alumnae organization and her work in the medical profession.

* * *

ANNOUNCEMENT

A small red notebook, containing names of persons who wish to be informed of the time and place of the next meeting of the Indiana Association of the History of Medicine, was lost at the annual conference of the Indiana State Medical Association. Information regarding the meeting may be obtained by writing to the secretary, Mrs. Mabel Walker, Librarian, Indiana University School of Dentistry, Indianapolis, Indiana.

THIRD DISTRICT MEDICAL SOCIETY

The Third District Medical Society will hold its meeting at the French Lick Hotel, French Lick, on November fifth. The program follows:

11:00 a.m. Post-Graduate Obstetric Program. "Normal Delivery, Episiotomy, Forceps and Cesarian Section," by Dr. Carl P. Huber, Indianapolis.

2:00 p.m. "Syphilis," by Dr. Minor Miller, Evansville.

2:30 p.m. "Gonorrhea," by Dr. A. F. Weyerbacher, Indianapolis.

3:00 p.m. "Pneumonia," by Dr. R. Hayes Davis, Louisville.

3:30 p.m. "Ear Infections," by Dr. Russell A. Sage, Indianapolis.

4:00 p.m. Rest Period.

4:30 p.m. "Goitre," by Dr. W. D. Little, Indianapolis.

5:00 p.m. "Rheumatic Fever," by Dr. Louis Segar, Indianapolis.

5:30 p.m. "Fractures," Dr. George Garceau, Indianapolis.

6:00 p.m. "Peptic Ulcer," by Dr. L. Wallace Frank, Louisville.

7:00 p.m. Dinner. After-dinner speaker will be Dr. James O. Ritchey, Indianapolis, whose subject will be "Endocrine Disorders."

WARNING TO PHYSICIANS REGARDING COUNTERFEIT CHECK ACTIVITY

Marvin Levinsohn, alias Martin Davis, wanted by the United States Secret Service on a charge of check forgery, is victimizing doctors by obtaining a pneumothorax treatment and presenting $14.00 checks in payment thereof, the checks being worthless. Levinsohn ordinarily dresses as a soldier and will display credentials under the name of Martin Davis. He is suffering from tuberculosis and is in absolute need of pneumothorax treatments at least once every three weeks.

In the event that he should appear in this state, please phone the United States Secret Service at Indianapolis, (Lincoln 6182), reversing the charges.

NURSING POSITIONS OPEN IN PANAMA CANAL

Nurses are needed for work in the Panama Canal. The Civil Service Commission has just announced a special examination to recruit nurses for these jobs. No written test will be given and applications will be accepted at the Commission's Washington office until further public notice.

The entrance salary for nurses in the Panama Canal service is $168.75 a month with provision for promotions at stated intervals. A deduction of $40.00 a month is made for subsistence and quarters which are available for single women only. An additional 5% deduction is made toward a retirement annuity.

Appointments will be made to general staff duty and to psychiatric work.

Further information and application forms may be obtained from the Commission's representative at any first-class or second-class post office, or from the central office direct in Washington, D.C.

CHILDREN'S BUREAU NEEDS MATERNAL AND CHILD HEALTH SPECIALISTS

Employment registers are to be established by the Civil Service Commission to fill maternal and child health specialist positions in the Children's Bureau of the Department of Labor. Vacancies in similar positions in state agencies cooperating with the Children's Bureau may also be filled from these registers at the request of the States concerned. The examination announcement just issued by the Civil Service Commission to recruit persons for these positions allows the filing of applications until November 15, 1941.

There are three options in which persons may qualify: pediatrics, obstetrics, and orthopedics. For each of these options employment lists will be established for administrative, research, and clinical positions. A written test will not be given for these positions. Competitors will be rated on their education, experience and corroborative evidence.

Doctors of Medicine who are interested in this opportunity for Government employment are urged to seek further information about these positions which pay from $3,200 a year to $5,600 a year. Further information and application forms may be obtained from the Commission's representative at any first- or second-class post office or from the central office at Washington, D.C.

SEVENTH DISTRICT MEETING

The Seventh District Medical Society meeting will be held in Indianapolis on November twenty-fifth. The afternoon meeting begins at 2:00 p.m. A dinner meeting will be held at the Indianapolis Athletic Club in the evening, with a speaker of national prominence.

NEW MEDICAL OFFICER EXAMINATION ANNOUNCED

Because of the critical need for Medical Officers in the Government, the Civil Service Commission has found it necessary to cancel the Medical Officer examination announced in August of 1940 and to issue another with certain modifications.

The principal changes in the new announcement are: The adding of the option "Public health, general" to the Senior grade and the option "Cancer: (a) Research, (b) Diagnosis and Treatment" to the Medical Officer and Associate grade; the provision for the acceptance of applications for the Associate grade from persons who have not yet completed interneship; the setting back of the date of graduation for the Associate grade to May 1, 1930; and the raising of the age limit for ALL grades to FIFTY-THREE.

Further information may be obtained from the Commission's representative at any first- or second-class post office or from the Central Office at Washington, D.C.

PROGRAM FOR POSTGRADUATE COURSE IN OBSTETRICS SPONSORED BY GIBSON COUNTY MEDICAL SOCIETY IN COOPERATION WITH BUREAU OF MATERNAL AND CHILD HEALTH OF THE INDIANA STATE BOARD OF HEALTH.

NOTE: This refresher course will consist of five weekly meetings to be held on Wednesday evening for five consecutive weeks on the dates indicated. The sessions will be held at the Emerson Hotel, Princeton, Indiana. Dinner will be served at 6:00 p.m. and the scientific meeting will follow at 7:00 p.m. The only cost will be fifty cents for the dinner.

First Meeting—Wednesday, October 22
1. Antenatal Care and Management of Labor
2. Episiotomy and Repair
   (With motion pictures)

Second Meeting—Wednesday, October 29
1. Abortion and Ectopic Pregnancy
2. Postpartum Hemorrhage
   (With motion pictures)
3. Placenta Previa and Abruptio Placenta

Third Meeting—Wednesday, November 5
1. Indications for the Use of Forceps
2. Forceps
   (With motion pictures)
3. Posterior Positions

Fourth Meeting—Wednesday, November 12
1. Medical Complications of Pregnancy
2. Breech Delivery
   (With motion pictures)
3. Hyperemesis Gravidarum

Fifth Meeting—Wednesday, November 19
1. Cesarean Section
2. Low Cervical Cesarean Section
   (With motion pictures)
3. Puerperal Infection.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION
THE COUNCIL

First Meeting

(Indianapolis Session September 23, 1941)

The first meeting of Council was held in the Empire Room of the Claypool Hotel, Indianapolis, Tuesday, September 23, 1941. The chairman, Dr. F. T. Romberger, called the meeting to order at one-fifteen.

Roll call showed the following members present:

Councilors

First District, I. C. Barclay.
Third District, W. H. Garner.
Fourth District, J. C. Elliott.
Sixth District, Samuel Kennedy.
Seventh District, C. J. Clark.
Eighth District, E. H. Clauser.
Ninth District, F. T. Romberger.
Tenth District, James M. White.
Eleventh District, Ira Perry.
Twelfth District, H. L. Murdock.
Thirteenth District, Alfred Ellison.

Officers

President, A. M. Mitchell.
President-elect, M. A. Austin.
Treasurer, A. F. Weyerbacher.
Editor of The Journal, E. M. Shanklin.

Members of Executive Committee

C. A. Nafe, Chairman.
C. H. McCaskey.
Albert Stump, attorney.
R. L. Sensenich, Past President.
T. A. Hendricks, Executive Secretary.

General Arrangements Chairman

Charles F. Thompson.

The Chairman called for any additional reports that councilors might wish to make, and James M. White made the following report for the Tenth District:

Tenth Councilor District

Owing to a confusion in dates our report did not get in in time for publication. We were waiting for a suitable date for our fall meeting. That has been arranged and that meeting will take place October 9th, at Phil Smidt's,—an afternoon, dinner and evening meeting. You are all invited. Our summer meeting was well covered in The Journal, and we had as our guests the President and Executive Secretary. We had an election and Dr. Forster was elected as councilor for the ensuing term.

We have had some serious losses by death of some of our members: Dr. T. W. Oberlin, of Hammond; Dr. J. A. Craig, of Gary, and Dr. A. R. Kresler, of Rensselaer. They had all served in the Society in some official capacity.

The Tenth District is going along very nicely and there seems to be a spirit of unity. The meetings have been well attended.

Dr. Charles F. Thompson, Chairman Local

Committee on Arrangements: Tonight at six-thirty we are having a buffet luncheon at Murat Temple. We are planning for one thousand or more. Harry Bason, who is well experienced in radio circles, has arranged a program, including four or five special acts. This is entirely an entertainment program. It will be given upstairs in the theatre following the luncheon and along with that we will work in everything else.

The secretary read a letter from Dr. H. C. Wadsworth of Washington, councilor of the Second District, who was unable to attend the meeting on account of illness.

On motion of M. A. Austin, seconded by Alfred Ellison, a committee was appointed to draft a telegram to be sent to Dr. Wadsworth. This committee was composed of M. A. Austin and E. M. Shanklin.

On motion of Dr. Clark, duly seconded, the reading of minutes of previous meetings was dispensed with.

The executive secretary urged that the dates of district meetings be sent to headquarters office as soon as possible. It was announced that the Fifth District meeting would be held the first Friday in May, at Terre Haute; also that the date of the Thirteenth District meeting had been changed from November 5th to November 12th, at South Bend.

There being no unfinished business, the Council proceeded to the consideration of new business.

New Business

1. On motion of Dr. Clark, duly seconded, the report of the Auditing Committee, as printed in the Handbook, was accepted.

2. The executive secretary presented the matter of the purchase of a copy of the A. M. A. Directory for 1942 for Dr. Shanklin's office, it having been the custom in the past to purchase this directory for the editor's office.

On motion of Dr. White, seconded by Dr. Kennedy, this purchase was approved.

3. On motion of Dr. Clark, seconded by Dr. Perry, Dr. E. M. Shanklin was elected Editor of The Journal for another year, this being his tenth year in that capacity.

4. The following members were elected to serve on the Editorial Board for three years:

Dr. J. O. Ritchey, Indianapolis, to succeed Dr. E. F. Kiser, Indianapolis.

Dr. Robert V. Hoffman, South Bend, to succeed Dr. L. T. Rawles, Fort Wayne.

5. Dr. C. A. Nafe, chairman of the Executive Committee, made a report of its activities since the midwinter meeting of the Council. It was taken by consent that Dr. Nafe make a similar report for the Executive Committee to the first meeting of the House of Delegates.

6. On motion of Dr. Ellison, seconded by Dr. Austin, January 11, 1942, was chosen as the date for the midwinter meeting of the Council.

There being no further business, the Council then went into executive session to consider the case of Dr. Donald Lashley of Tell City.

Thomas A. Hendricks,
Executive Secretary.

THE COUNCIL

Second Meeting

(Indianapolis Session, September 25, 1941)

The second meeting of the Council was called to order at ten-fifteen Thursday, September 25, 1941, in the Chateau Room, Claypool Hotel, Indianapolis, immediately upon adjournment of the final meeting of the House of Delegates, with Dr. F. T. Romberger, the chairman, presiding.

The minutes of the previous meeting were not read.

Roll call showed the following members present:

Councilors

First District, I. C. Barclay.
Third District, W. H. Garner.
Sixth District, Samuel Kennedy.
Seventh District, C. J. Clark.
Eighth District, E. H. Clauser.
Ninth District, F. T. Romberger.
Tenth District, James M. White.
Eleventh District, Ira Perry.
Twelfth District, H. L. Murdock.
Thirteenth District, Alfred Ellison.

Officers

President, A. M. Mitchell.
President-elect, M. A. Austin.
Treasurer, A. F. Weyerbacher.
Editor of The Journal, E. M. Shanklin.
Past President, R. L. Sensenich.

Executive Committee

C. A. Nafe, Chairman.
C. H. McCaskey.
Albert Stump, attorney.
T. A. Hendricks, Executive Secretary.

The chairman read the following letter:

"Please accept my resignation from the Executive Committee of the Indiana State Medical Association. I am doing this because of my election to the presidency-elect of the association.

"I wish to express my deep appreciation for having had the privilege of serving on the Executive Committee these past years. Only by serving on this committee can one gain a knowledge of the tremendous amount of work entailed in the operation of the association.

Sincerely yours,
C. H. McCaskey, M.D."

Dr. E. O. Asher of New Augusta was elected to fill Dr. McCaskey's unexpired term on the Executive Committee.

The first order of business was the consideration of a set-up for the Military Preparedness program. Since the State Committee on Medical Preparedness will be functioning it was decided to postpone further discussion until the mid-winter

meeting. Mr. Hendricks announced the program for this meeting will be announced later.

Dr. A. M. Mitchell, the retiring president, thanked the members of Council for their assistance and advice during the past year.

Dr. James M. White, retiring member of Council, thanked the members for kindnesses shown him during his term of office.

Mr. Thos. A. Hendricks, Executive Secretary, thanked the councilors for their help during the year. Many difficult problems were encountered, but the Council, acting for the House of Delegates, has endeavored to work for the welfare of every practicing physician in the State.

Dr. R. L. Sensenich spoke of the new military board to be appointed.

Since the members of Council are now members of the State Advisory Committee, and since the Council can be quickly and easily assembled in case of emergency, no further action was taken, but the members were again urged to be thinking along the line of preparedness and to submit their ideas to Mr. Hendricks so the matter may be thoroughly considered at the mid-winter meeting.

No further business appearing, the Council adjourned.

Thomas A. Hendricks,
Executive Secretary.

INDIANA STATE MEDICAL ASSOCIATION
HOUSE OF DELEGATES

(Indianapolis Session, 1941)

First Meeting

The first meeting of the House of Delegates of the 1941 session convened in the Assembly Room of the Claypool Hotel, Indianapolis, at four-fifteen p. m. Tuesday, September 23rd, the president, Dr. A. M. Mitchell, of Terre Haute, presiding.

Dr. J. E. Ferrell, chairman of the reference Committee on Credentials, announced a quorum present.

Attendance slips, which are now substituted for roll call, showed the following members present:

County	*Delegates*
Allen	M. R. Lohman, Fort Wayne.
	W. C. Wright, Fort Wayne.
	M. B. Catlett. Fort Wayne.
Bartholomew	Robert B. Hart, Columbus
Boone	Clancy Bassett, Thorntown
Carroll	Max Adams, Flora
Cass	B. W. Egan, Logansport.
Clark	E. P. Buckley, Jeffersonville.
Clay	H. H. Ward, Coalmont.
Clinton	M. F. Boulden, Frankfort.
Dearborn-Ohio	Robert M. Ferguson, Rising Sun.
Decatur	D. D. Dickson, Letts.
Dekalb	W. W. Swarts, Auburn.
Delaware-Blackford	L. G. Montgomery, Muncie
	Clay Ball, Muncie.
Dubois	H. C. Knapp, Huntingburg.
Elkhart	A. C. Yoder, Goshen.
Floyd	William Weaver, New Albany.
Fountain	J. Carl Freed, Attica.
Fulton	A. E. Stinson, Rochester.
Gibson	Carl M. Clark, Oakland City.
Grant	Russell W. Lavengood, Marion.
Hancock	J. E. Ferrell, Fortville.
Harrison	William E. Amy, Corydon.
Hendricks	J. C. Stafford, Plainfield.
Henry	R. L. Amos, New Castle.
Howard	D. A. Morrison, Kokomo.
Huntington	C. S. Black, Warren.
Jackson	G. H. Kamman, Seymour.
Jefferson	N. A. Kremer, Madison.
Jennings	J. H. Green, North Vernon.
Johnson	Oran Province, Franklin.
	John Machledt, Whiteland.
Knox	C. L. Boyd, Vincennes.
Kosciusko	O. H. Richer, Warsaw.
Lake	C. R. Pettibone, Crown Point
	R. M. Hedrick, Gary
Laporte	J. N. Kelly, LaPorte.
Lawrence	L. H. Allen, Bedford.
Madison	C. V. Rozelle, Anderson.
	Weir Miley, Anderson.
Marion	E. F. Boggs, Indianapolis.
	Walter F. Kelly, Indianapolis.
	M. V. Kahler, Indianapolis.
	E. O. Asher, New Augusta.
	Lacey L. Shuler, Indianapolis.
	Henry F. Nolting, Indianapolis.
	O. W. Sicks, Indianapolis.
	O. H. Bakemeier, Indianapolis.
	Roy A. Geider, Indianapolis.
	John H. Warvel, Indianapolis.
	C. L. Rudesill, Indianapolis.
Marshall	A. A. Thompson, Tyner.
Miami	H. E. Line, Chili.
Monroe	Neal Baxter, Bloomington.
Montgomery	T. Z. Ball, Crawfordsville.
Noble	A. L. Fipp, Rome City.
Orange	George Dillinger, French Lick.
Owen	Robert H. Pierson, Spencer.
Parke-Vermillion	E. H. Dowell, Rockville.
	Paul B. Casebeer, Clinton.
Pike	John T. Kime, Petersburg.
Posey	W. E. Jenkinson, Mt. Vernon.
Randolph	J. S. Robison, Winchester.
Ripley	R. Lee Smith, Osgood.
Rush	Willard Smullen, Rushville.
St. Joseph	A. S. Giordano, South Bend
	G. M. Rosenheimer, South Bend
	Erwin Blackburn, South Bend.
Scott	Marvin L. McClain, Scottsburg.
Shelby	W. D. Inlow, Shelbyville.
Sullivan	J. T. Oliphant, Farmersburg.
Tippecanoe	Gordon A. Thomas, Lafayette.
Tipton	S. M. Cotton, Goldsmith.
Vanderburgh	Minor Miller, Evansville.
	Robert Acre, Evansville.
Vigo	O. R. Spigler, Terre Haute.
	A. W. Cavins, Terre Haute.
	E. O. Nay, Terre Haute.
Wabash	C. Eugene Cook, North Manchester.
Washington	Claude B. Paynter, Salem.
Wayne-Union	H. P. Ross, Richmond.
	Will Thompson, Liberty.
Wells	Max M. Gitlin, Bluffton.
White	Jesse P. Galbreath, Burnettsville.

	Councilors
First Dist.	I. C. Barclay, Evansville.
Third Dist.	W. H. Garner, New Albany.
Sixth Dist.	Samuel Kennedy, Shelbyville.
Seventh Dist.	C. J. Clark, Indianapolis.
Eighth Dist.	E. H. Clauser, Muncie.
Ninth Dist.	F. T. Romberger, Lafayette.
Tenth Dist.	James M. White, Gary.

Eleventh Dist. Ira Perry, North Manchester.
Thirteenth Dist. Alfred Ellison, South Bend.

Past Presidents

W. R. Davidson, Evansville.
E. M. Shanklin, Hammond.
Charles N. Combs, Terre Haute.
Frank W. Cregor, Indianapolis.
George Daniels, Marion.
Charles E. Gillespie, Seymour.
J. H. Weinstein, Terre Haute.
E. E. Padgett, Indianapolis.
R. L. Sensenich, South Bend.
Herman M. Baker, Evansville.
E. M. VanBuskirk, Fort Wayne.

Officers

A. M. Mitchell, Terre Haute, president.
M. A. Austin, Anderson, president-elect.
A. F. Weyerbacher, Indianapolis, treasurer.
Cleon A. Nafe, Indianapolis, chairman Executive Committee.
Thomas A. Hendricks, Indianapolis, executive-secretary.

Delegates to A. M. A.

D. F. Cameron, Fort Wayne.
F. S. Crockett, Lafayette.
N. M. Beatty, Indianapolis.
H. G. Hamer, Indianapolis.

The President: Before we proceed to the business of the House of Delegates I will call on Dr. Amy, of Corydon, who has a matter to bring before us.

Dr. William E. Amy, Corydon: Gentlemen of the convention: For some time I have had an idea that I wanted to present a gavel to this body. I am doing this on my own initiative. I am not able to write a scientific paper—never could; but I had a piece of wood in my possession that I brought along in the form of a gavel. The ball of that gavel was taken from the Constitutional Elm at Corydon, under which the original Constitution of the State of Indiana was written in 1816. The weather was warm and they had no adequate place for assembling the convention, so they went out under a big elm tree, about 175 feet across and 125 feet high, with Indian Creek to the west and Big Springs to the south. The Constitution of the State of Indiana was written under this tree. The beetles tried to destroy this tree a few years ago and it died. The Daughters of the American Revolution preserved a bit of the wood and they are going to build a stone edifice over the stump to commemorate the location of the writing of the constitution.

Of course you know that in 1825 Indianapolis was chosen as the place wherein Indiana should have her capital. The survey started at the old State House in Corydon at that time and there is a marker showing where the surveyors started. The records state that the survey should extend due north to the center of the State as near as they deemed fit so it would come in on the meridian line the same as the old State House is in Corydon. They have the stake in the historical museum that was driven in when they started the capitol building.

The handle of this gavel came from the farm of William Henry Harrison, who was a great patriot, statesman and Governor. This was an apple tree that Governor Harrison brought from Virginia, so I am told, and planted there. Today the only thing left on the William Henry Harrison farm that would commemorate the period when he lived there is Big Spring. This spring is about 125 feet across, it is almost round, and it is at least 100 feet to the bottom of it. William Henry Harrison built a mill at the site of this spring, and the mill race still stands, but the mill itself has been destroyed. I am told he built this mill with his own hands. He ground meal and flour in this mill for a long time, until he left the State of Indiana.

This gavel was made by Mr. John Best, and I am happy, Mr. President, to present it to you.

The President: I thank you, Dr. Amy, on behalf of the association, for this gavel. I am happy to be the first one to use it and I hope it will be used for many years to come. Just to be sure that I am the first to use it, I will call the House of Delegates to order again.

According to Chapter IV, Section 3, of the By-Laws, 20 delegates constitute a quorum. The House of Delegates, therefore, is declared open and ready for the transaction of business.

The By-Laws may be amended at any annual session by a majority vote of all delegates present at that session, after the amendment has laid on the table for one day. The House of Delegates may amend any article of the Constitution by a two-thirds vote of all delegates present at any annual session provided that such amendment shall have been presented in open meeting at the previous annual session and that it shall have been published twice during the year in The Journal of the Association.

Many things are happening today, perhaps more than we realize, that will affect the future practice of medicine. I hope the deliberations of the House of Delegates may be conducted in a diplomatic manner that will safeguard your own welfare. I will read the names of those who were members of the House of Delegates or who served the state association in official capacity and who have passed away since the 1940 annual session:

William N. Wishard, Indianapolis.

President 1898. Councilor of Seventh District 1904-1914. Delegate to A. M. A. 1907-1910. Chairman of Committee on Public Policy and Legislation 1908, 1909, 1912-1914, 1916-1918, 1920 and 1921. Chairman of Bureau of Publicity 1924-1941.

Charles H. McCully, Logansport.

Second Vice-President 1908. Councilor of Eleventh District 1907-1910. Delegate to A. M. A. 1908-1911. President 1920. Member, Committee on Public Policy and Legislation 1921 and 1924. Member, Committee on Industrial and Civic Relations 1923.

A. F. Knoefel, Terre Haute.
Second Vice-President 1907. Councilor of Second District 1910-1913. Member of Committee on Automobile Insurance 1922, 1923. Member of Committee on Civic and Industrial Relations 1926, 1928. Chairman of Committee on Civic and Industrial Relations 1934-1941. Member of Committee on Expert Testimony 1935.

Lorin W. Smith, Wabash.
Member of Committee on Tuberculosis 1912-1913. Second Vice-President 1914.

C. H. Fullenwider, Mt. Vernon.
Member of Committee on Public Policy and Legislation 1909-1910.

W. A. Spurgeon, Muncie.
Member of Committee on Medical Education 1908-1909.

George E. Denny, Madison.
Member of Committee on Compulsory Ventilation 1912-1913. Member of Committee on Public Policy and Legislation 1931.

Thomas W. Oberlin, Hammond.
Member of: Committee on Medical Education and Hospitals 1934-1936, Committee on Occupational Diseases 1938-1939, Committee on Industrial Health 1940.

T. C. Eley, Plymouth.
Member of Public Relations Committee 1936.

A. R. Kresler, Rensselaer.
Member of Committee on Public Policy and Legislation 1908, 1909.

J. W. Phares, Evansville.
First Vice-President 1917.

A. P. Ranier, Remington.
Secretary Jasper-Newton County Medical Society.

Hugh J. White, Hammond.
First Vice-President 1921.

Walter R. Cleveland, Evansville.
Member of Committee on Control of Cancer 1939, 1940.

Fred A. Dennis, Crawfordsville.
Member of Committee on Health and Public Instruction 1914, 1915.

John C. Fleming, Elkhart.
Vice-chairman, Surgical Section 1916.

C. W. Hartloff, Evansville.
Member of Committee on Prevention of Venereal Diseases 1908, 1909.

R. C. Austin, Bloomington.
Delegate from Monroe county 1941.

(The members of the House of Delegates stood in silence for thirty seconds in memory of these departed members.)

On motion of Dr. George R. Daniels, seconded by Walter F. Kelly, the minutes of previous meetings as printed in THE JOURNAL of December, 1940, were accepted and the reading at this time dispensed with.

THE PRESIDENT: I will ask Dr. Weinstein to escort Dr. Austin, the incoming president, to the platform.

DR. M. A. AUSTIN: I have nothing to say except that I really appreciate the honor this association has bestowed upon me. I hope that I may be able to conduct, as an executive, the work in the manner of my predecessors and that I may be classed not only as a faithful member, but as one who hopes to continue to do his share of the work even after my term of office is over. I thank you.

THE CHAIRMAN: Your attention is called to Article V of the Constitution which gives the A. M. A. delegates and alternates the right to sit in the House of Delegates, have the privilege of the floor but no power to vote. These delegates and alternates and all members of the association who desire to sit in on this meeting and hear the deliberations of the House are welcome.

In accordance with Chapter IX, Section 1, of the By-Laws of the association, reference committees have been appointed and the names of these committeemen were published in the September JOURNAL and in the Handbook, on pages 113 and 114. These committees are to serve during the session at which they are appointed. They are not to be confused with the all-year round standing committees. These committees should organize immediately after adjournment of the House today. Opportunity will be given each chairman to announce the time and place his committee will meet.

These reference committees as previously appointed and published are as follows:

Sections and Section Work:

M. R. Lohman, Fort Wayne, chairman (Allen).
G. H. Kamman, Seymour (Jackson).
Neal Baxter, Bloomington (Monroe).
R. Lee Smith, Osgood (Ripley).
Erwin Blackburn, South Bend (St. Joseph).

Rules and Order of Business:

M. F. Boulden, Frankfort, chairman (Clinton).
C. Eugene Cook, North Manchester (Wabash).
H. H. Ward, Coalmont (Clay).
O. R. Spigler, Terre Haute (Vigo).
H. E. Line, Chili (Miami).

Medical Education and Hospitals:

J. T. Oliphant, Farmersburg, chairman (Sullivan).
Oran Province, Franklin (Johnson).
Robert H. Pierson, Spencer (Owen).
John H. Warvel, Indianapolis (Marion).
R. G. Harkness, Terre Haute (Vigo).

Public Policy and Legislation

George Dillinger, French Lick, chairman (Orange).
E. H. Dowell, Rockville (Parke).
E. P. Buckley, Jeffersonville (Clark).
B. W. Egan, Logansport (Cass).
D. A. Morrison, Kokomo (Howard).

Publicity:

C. N. Combs, Terre Haute, chairman (Vigo).
A. E. Stinson, Rochester (Fulton).
C. S. Black, Warren (Huntington).
Walter F. Kelly, Indianapolis (Marion).
W. D. Inlow, Shelbyville (Shelby).

Hygiene and Public Health:

Claude Paynter, Salem, chairman (Washington).
Minor Miller, Evansville (Vanderburgh).
S. M. Cotton, Goldsmith (Tipton).
H. P. Ross, Richmond (Wayne).
William Weaver, New Albany (Floyd).

Amendments to Constitution and By-Laws:
J. H. Weinstein, Terre Haute, chairman (Vigo).
Ben B. Moore, Indianapolis (Marion).
Weir M. Miley, Anderson (Madison).
Max Adams, Flora (Carroll).
L. G. Montgomery, Muncie (Delaware).

Reports of Officers:
O. H. Richer, Warsaw, chairman (Kosciusko).
P. E. Yunker, Evansville (Vanderburgh).
Clancy Bassett, Thorntown (Boone).
Carl M. Clark, Oakland City (Gibson).
Austin Sweet, Martinsville (Morgan).

Committee on Credentials:
J. E. Ferrell, Fortville, chairman (Hancock).
L. H. Allen, Bedford (Lawrence).
Gordon A. Thomas, Lafayette (Tippecanoe).
O. W. Sicks, Indianapolis (Marion).
M. B. Catlett, Fort Wayne (Allen).
W. E. Amy, Corydon, ex-officio (Harrison).
A. L. Fipp, Rome City (Noble).
J. W. Bowers, Fort Wayne (Allen).

Committee on Miscellaneous Business:
A. C. Yoder, Goshen, chairman (Elkhart).
E. O. Asher, New Augusta (Marion).
A. A. Thompson, Tyner (Marshall).
B. V. Lally, Tell City (Perry).
J. S. Robison, Winchester (Randolph).

REPORTS OF OFFICERS

The Chairman: Most of these reports except for the address from the chair and the address of the president-elect are printed in the September issue of The Journal and in the Handbook. However, each officer and committee chairman will be given five minutes in which to make any additions or explanations to the reports already published.

The address of the president, to be made before the general meeting on Wednesday, will be referred to the Reference Committee on Reports of Officers.

REPORT OF THE EXECUTIVE SECRETARY

Mr. T. A. Hendricks: There is nothing at this time to add to the official report that appears in the Handbook. However, on behalf of the local committee on arrangements, I urge all of you to get your banquet tickets as early as possible, as we have to make a definite guarantee to the Scottish Rite Cathedral of the number for whom they will have to prepare.

(Referred to Reference Committee on Reports of Officers.)

REPORT OF THE TREASURER

Dr. A. F. Weyerbacher: I have nothing additional to report, but I would like to call your attention to the rather healthy financial condition last year and warn you not to expect as much this year, owing to the rebates to be made up because of men in service.

(Referred to Reference Committee on Reports of Officers.)

REPORT OF CHAIRMAN OF THE COUNCIL

Dr. F. T. Romberger: I wish to confirm the report as printed in the Handbook, with the exception that I would like to have stricken out the change in the Constitution and By-Laws. The Council deemed it unwise to make this amendment at this time.

(Referred to Reference Committee on Reports of Officers.)

REPORTS OF STANDING AND SPECIAL COMMITTEES

COMMITTEE ON CREDENTIALS

Dr. J. E. Ferrell, chairman, reported three additional names:

C. G. Kern, Lebanon,
E. L. Libbert, Lawrenceburg,
C. A. Ball, Muncie.

(Referred to Reference Committee on Credentials.)

EXECUTIVE COMMITTEE

Dr. C. A. Nafe: Members of the House of Delegates: This is the sixth year that I have had the pleasure of making this report to the House of Delegates, and the report as written is recorded on pages 34 to 49 of the Handbook. I hope you will be careful to read that report.

As you will note, there has been a tremendous increase in the number of problems that have been presented to the Executive Committee in the past five or six years. This is revealed in the lengthy report which was written by the Executive Secretary and approved by the Executive Committee. But your Executive Secretary, with due modesty, probably does not emphasize a fact that I think it is proper for the chairman of the Executive Committee to call to your attention. With the tremendous amount of increased work at the headquarters office during the past six years, there has been very little increase in personnel except by occasional help, and to me, being closely associated with headquarters, it is with a sense of considerable satisfaction that I note how the burden of increased work has been handled in that office. I therefore wish to commend to you the very efficient way in which the headquarters office is conducted.

During the past year we have held monthly meetings. There have been many problems presented to the Executive Committee. We have labored over them and we hope we have handled them as wisely as possible. I want to say on behalf of the other members of the committee, Drs. McCaskey, Romberger, Austin, Mitchell, Weyerbacher and our attorney, Mr. Stump, that they have religiously attended these meetings and spent a lot of time. Personally, I wish to thank them for their united effort in trying to solve some of these problems.

As I said before, there are many new problems arising, due to the New Deal, to the present matters of legislation, and to the war emergency, as you all know, but I do not know how the amount of work as presented through our very efficient Executive Secretary to the Executive Committee could be better handled. Speaking for the other members of the committee and myself, it has been a pleasure to help in handling this work.

(Referred to Reference Committee on Reports of Officers.)

COMMITTEE ON ARRANGEMENTS

Referred to Reference Committee on Miscellaneous Business.

COMMITTEE ON SCIENTIFIC WORK

Referred to Reference Committee on Sections and Section Work.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. Norman M. Beatty, co-chairman, spoke of legislative matters, submitting his statements as a supplementary report to the report of his committee which was printed in the Handbook.

(Referred to Reference Committee on Public Policy and Legislation.)

BUREAU OF PUBLICITY

Dr. H. G. Hamer: Supplementing the published report of the Bureau of Publicity, I wish to make a few informal remarks.

From the time of the creation of the Bureau until his death, Doctor Wishard was its chairman. As most of you know, he was one of the sponsors and organizers of the committee which came into being in 1922. During the years, the work of the committee reflected his foresight, strong judgment, high standards, and his strength of character. With his high purpose and achievements in mind, the committee, at its first meeting after Doctor Wishard's death, was unanimous in the sentiment that it would continue, insofar as possible, the general policies under which the Bureau had worked for the past nineteen years with Doctor Wishard's leadership.

I prize the honor of following Doctor Wishard as chairman of the Bureau, but I feel keenly the great responsibility and have walked with the consciousness of my limitations from the beginning of this undertaking.

We are fortunate in having the advantage of the experience of our executive secretary in dealing with our problems. On behalf of the Bureau I wish to express grateful appreciation of his expert aid in promoting the work of the Bureau.

(Referred to Reference Committee on Publicity.)

COMMITTEE ON CIVIC AND INDUSTRIAL RELATIONS

Dr. H. P. Ross: I have been a member of the committee two years, and as far as I know there has never been a meeting called. I have been advised that this was a very active committee some five years ago, but in the last two or three years there has been practically nothing for the committee to do. I feel keenly the uselessness of being chairman of the committee.

(Referred to Reference Committee on Public Policy and Legislation.)

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

Referred to Reference Committee on Medical Education and Hospitals.

JOURNAL PUBLICATION COMMITTEE

Referred to Reference Committee on Reports of Officers.

COMMITTEE ON SECRETARIES' CONFERENCE

Referred to Reference Committee on Miscellaneous Business.

COMMITTEE ON SCIENTIFIC EXHIBIT

Referred to Reference Committee on Sections and Section Work.

PERMANENT STUDY COMMITTEE ON HEALTH INSURANCE

Referred to Reference Committee on Public Policy and Legislation.

COMMITTEE ON NECROLOGY AND HISTORY

Referred to Reference Committee on Miscellaneous Business.

COMMITTEE ON STUDY OF HIGH SCHOOL ATHLETICS

Referred to Reference Committee on Hygiene and Public Health.

COMMITTEE ON MENTAL HEALTH

Referred to Reference Committee on Hygiene and Public Health.

COMMITTEE ON STATE FAIR

Referred to Reference Committee on Publicity.

COMMITTEE ON PREVENTION OF TRAFFIC ACCIDENTS

Referred to Reference Committee on Hygiene and Public Health.

ADVISORY COMMITTEE TO THE BUREAU OF MATERNAL AND CHILD HEALTH OF THE INDIANA STATE BOARD OF HEALTH

Referred to Reference Committee on Public Policy and Legislation.

DIRECTOR OF RESEARCH ON SICKNESS INSURANCE

Referred to Reference Committee on Public Policy and Legislation.

SUB-COMMITTEE TO STUDY MATERNAL MORBIDITY AND MORTALITY RATES FOR INDIANA

Referred to Reference Committee on Public Policy and Legislation.

LIAISON COMMITTEE OF THE DIVISION OF SERVICES FOR CRIPPLED CHILDREN

Referred to Reference Committee on Public Policy and Legislation.

AUDITING COMMITTEE

Referred to the Council.

COMMITTEE ON CONTROL OF CANCER

Referred to Reference Committee on Hygiene and Public Health.

COMMITTEE ON VENEREAL DISEASE

Referred to Reference Committee on Hygiene and Public Health.

COMMITTEE ON INDUSTRIAL HEALTH

Referred to Reference Committee on Hygiene and Public Health.

COMMITTEE TO STUDY CULTISTS AND IRREGULAR PRACTITIONERS

Referred to Reference Committee on Public Policy and Legislation.

COMMITTEE ON INDIANA INTER-PROFESSIONAL HEALTH COUNCIL

Dr. F. S. Crockett: I have nothing further to report, except to note again the death of Dean Jordan, who was the promoter and inspiring spirit of the Council. It is the plan of this Council to reorganize at the meeting this fall.

(Referred to Reference Committee on Miscellaneous Business.)

ANTI-TUBERCULOSIS COMMITTEE

Referred to Reference Committee on Hygiene and Public Health.

COMMITTEE ON CONSERVATION OF VISION

Referred to Reference Committee on Hygiene and Public Health.

M-DAY AND VETERANS' AFFAIRS COMMITTEE

Dr. C. R. Bird:

Gentlemen: The following further report is hereby submitted:

The total number of medical officers from Indiana to date in the armed forces of the United States is approximately 350. The total number of selectees to date is approximately 25,000.

The question of how future medical personnel is to be selected in the event of mobilization remains one to be determined. Considerable thought has been given to the subject and as yet no definite plan determined upon. In a recent communication from Mr. Paul V. McNutt, he stated that the matter had been taken up with the secretaries of the Army and Navy Departments, and had been carried to the Cabinet for consideration, where a plan was evolved which would require legislation. What this plan is to be, I have as yet had no information.

There is a new and somewhat different plan, which is only tentative for the present, for future examination of selectees already approved by the War Department, Surgeon General's office, and G-2 section of the War Department. The local board examiner under this plan will not make urinalysis, will fill in the medical history section of Form 200, after having made a physical examination to determine the probable fitness of the selectee, and certify the same to the newly provised Army Examining Board:

This will accomplish:

1. Lift the onus as to qualifications from the local examiners' shoulders.
2. The man is sent to an Army Examining Board which is different from the Induction Board, 30 to 60 days prior to call. This gives the selectee a chance to arrange his personal affairs and industrial connections. Should the selectee contract G.C. or other acute disease before he reaches the induction board, he will be accepted and treated in service.
3. This will save the local examiner 50% of the time required under the old set-up.
4. Under this plan, selectees will not be referred by the local examiner to medical advisory boards, thereby cutting down the work of these boards, which will consider only cases referred to them by army examining boards.
5. The local examiner will refer all questionable cases to the Army Examining Board.
6. There will be five areas in Indiana, each with a designated examining center. A certain northern portion of the State, which will include Fort Wayne and Gary areas, will be served by a roving examining board from Toledo, Ohio, which will be supplemented by civilian physicians from the vicinity of the designated examining centers. This civilian personnel will consist of:
   1. Two chest men, especially qualified as to heart, inasmuch as all selectees will be x-rayed.
   2. Two ear, nose and throat specialists and one eye specialist.
   3. One (two if possible) neuro-psychiatrists.

Such civilian personnel will be paid a per diem of $15.00. Recommendation for such personnel and appointments are requested of local M-Day committees by Selective Service Headquarters. Fort Harrison will serve the central portion of the state and the Evansville district. The southeastern portion will be served by a board from Louisville. This sums up to a total of three army examining boards for five areas in the state.

Attention is invited to the fact that there are still a few counties in which an M-day committee has not yet been appointed. Councilors and society officers are urgently requested to make such appointments at once, since Selective Service Headquarters finds occasion to call upon M-day committees several times a week for information and assistance, and these committees are an indispensable organized aid. As time goes on they will become increasingly important.

Every medical officer in the Fifth Corps Area has been declared as indispensable and will not be presently released. This is confirmed by radiogram as of today, September 23, 1941.

One year ago there were 3,500 reserve officers in Indiana representing the various branches of service. Today there are left but 600, of which only 400 are available for service because of age or other disqualification. In Indiana there are but five medical reserve officers—four colonels, and one lieutenant-colonel; and three of these five are beyond military age. In the Fifth Corps Area if the army released the 7,500 reserve officers at the expiration of their year's service, there would be but 1,800 to replace them. Finally, then, none of us needs to be convinced of the existing emergency. It remains for us to evolve means to meet the needs of the near future as to medical personnel.

Herewith is submitted a map allocating the five examining regions of the state. Anyone who has had much work to do cannot but appreciate the proficiency, spirit of helpfulness and the courtesy that prevails in the offices of the Executive Secretary.

(Moved by Dr. Bird that this supplementary report be incorporated in the report as published in The Journal. Seconded by Dr. Cregor and carried.)

(Referred to Reference Committee on Miscellaneous Business.)

COMMITTEE ON PHYSICAL THERAPY

Referred to Reference Committee on Miscellaneous Business.

PNEUMONIA COMMITTEE

Referred to Reference Committee on Hygiene and Public Health.

MEDICAL RELIEF COMMITTEE

DR. J. S. LEFFEL:

This report is being given here today for one particular reason. Namely, to discuss with you the procedures best suited for the administration of the amendments of the Indiana Welfare Law passed by the State Legislature this year and to become effective January 1, 1942. In accordance with this act the county welfare department may furnish adequate medical, hospital and dental care for the recipients of old age pensions, dependent children, the mothers, and under certain circumstances the fathers, and possibly others whose incapacity might be considered a cause of the dependency. The State Department of Public Welfare will, under the amendments as under the old law, assume the responsibility for medical, hospital and dental care of the blind. In these three categories of public assistance there is a grand total of at least 120,000 persons and it appears that, regardless of deaths and improved economic conditions, the number is constantly growing larger.

In order to plan for the administration of this new law the State Department of Public Welfare asked the State Medical Association to designate some one to act as their representative on an advisory committee composed of representatives of eight other groups more or less interested in the administration of this new law. The Executive Committee asked me as chairman of the medical relief committee to serve on the advisory committee.

In the past the only governmental agent concerned about the methods and the cost of treatment of the indigent was your neighbor, the township trustee. His jurisdiction was limited to the township, his immediate neighborhood. After the first of next January the limit of jurisdiction of the governmental agent concerned about the treatment of the indigent extends not only to the county and the state, it may extend to the federal government in Washington. After the first of next January you will have a new governmental paymaster who will be granted dictatorial authority; and it is obvious that the individual or group of individuals, who pay the bill, if given dictatorial authority, may indicate to whom and how much is spent. If you accept state and federal money you may be compelled to accept the dictation of the Social Security Board in Washington and the State Department of Public Welfare in Indianapolis.

When I reported to this group one year ago, speaking on the increased cost of indigent care, I said it was due to a world-wide trend. "A trend in social, industrial, economical, political, and governmental affairs, whereby there is an aggression, which insists on the devaluation of individual responsibility and self reliance, and depends on an all-powerful, paternalistic, providential government and its personalities for everything, from poor assistance to the blessings of a Divine Providence." I said further "that legislation does not stop trends; it follows trends." Considered in terms of what we are in the habit of calling State Medicine, the enactment of the amendments to the Welfare Act is the longest step ever taken in Indiana in response to that world-wide trend.

In view of these observations, it seems clear that for organized medicine to oppose a trend would be futile and foolish. Therefore the committee on indigency is recommending that the State Medical Association make an honest, sincere effort to negotiate and cooperate with the State Department of Public Welfare to the end that the groups under discussion receive the best available care at a reasonable cost. To accomplish this we are again recommending home rule by advising each county medical society to negotiate with their respective county welfare associations. We believe that each county welfare group should be given as much authority as the several laws permit, to plan with each county medical society for the best available treatment at a reasonable cost. We recommend that any set of principles sent out to county welfare departments by the State Welfare Department must be general, easily amended, and not specific; and that standards for county welfare departments must not be mandatory except to assure reasonable administration.

If the committee advisory to the State Welfare Department is successful in establishing a program of home rule, the program then becomes the responsibility of each county medical society. We believe this to be the best possible procedure, but may I remind you that the Federal Security Act was not written to protect physicians unless they become indigent and a court record in Washington, D.C., says we are a monopoly. May I remind you further that the law gives the governmental paymaster dictatorial authority. Therefore, the physician whose motive is anything except adequate care at a reasonable cost, will receive whatever punishment the paymaster wishes to administer.

(Referred to Reference Committee on Public Policy and Legislation.)

DR. CLAUDE B. PAYNTER: I happen to be a member of the Welfare Board, and I am also a member of the State Association, so I am rather between the devil and the deep blue sea, in discussing this subject, trying to uphold the Welfare Department on the one hand and determined that the doctors have a square deal and independence on the other. I do not know whether you people are aware that there are three methods that have been sent out to the welfare boards by the State Welfare Department for your considera-

tion. There are three suggested methods to be followed in dealing with the medical profession and the local welfare boards will submit these methods before January first to the medical societies for agreement as to which shall be used. However, I will say this, these may be modified, following suggestions from the State Welfare Department, but up to September fifteenth this was all. I would like to read these methods because I think before this body can act intelligently on a resolution that is likely to be presented to them in the future, they should know the limitations that the Welfare Boards are going to offer them for agreement and what is coming to them in the future. Two of these are so realistically "state" medicine it is pitiful. I would like to give this to the chairman of the reference committee so the committee may have it to look over before any resolution is written and presented to this House of Delegates.

Plans:

1. A salaried county physician. This is one of the oldest plans in use. Sometimes the duties of a county physician are coordinated with those of the county health officer and again he may be a separate physician. The costs of such services are determined in advance, which is one of the advantages presenting themselves. However, recipients needing medical attention must either consult with this county physician or secure treatment from a physician of their own choice who may be willing to serve without remuneration.

2. The organized group or paid lump sum plan of administering medical assistance has in many communities received the endorsement of the medical profession, and a number of welfare boards in other states who have attempted this plan have found it successful.

Under such a program the local welfare board makes a contract or agreement with the local medical society. The members of the local medical group then agree to furnish public assistance clients with medical care for a specified total sum per month or for a sum determined by a controlled fee based on the number of cases on the assistance rolls each month. In such instances the county director at the beginning of each month certifies to the local medical society the names of all recipients who are eligible to receive medical care during the month. Any recipient then may consult any physician who participates in the agreement made by the society. In such instances the specified sum is paid to the group regardless of the service rendered. The sum may be retained by the medical society to use for educational activities or it may be apportioned among the physicians who sign the agreement.

In some instances the lump sum agreed upon is the maximum amount which the county will pay during any one month. If the cost of service rendered at the fees established in the agreement exceeds the total cost, the fees are prorated and reduced so that the total expenditure is within the agreed sum.

This plan has the advantage of permitting the welfare department to budget and control the medical expenditure, of permitting the client free choice among physicians, and of eliminating a great share of the need for free care furnished by many private physicians.

3. All physicians paid on a controlled fee and call basis is another plan in use in some communities. In this case any physician who so desires, regardless of whether or not he is a member of the medical society, participates in the services rendered recipients. A fee schedule is usually worked out and recipients are free to call any physician whom they desire. An advisory committee of physicians usually audits bills which seem excessive or where calls exceed a certain number. The fee may be included in the budget of the individual and reimbursement from federal funds is easily secured, or the physician may be paid directly.

The greatest difficulty associated with this plan is that of controlling the total cost, and of budgeting. This is true even when the medical profession attempts to keep the total cost to the minimum. It also places to some extent upon the county department the responsibility for determining what medical services the recipients need and of maintaining whatever controls seem necessary.

Dr. F. W. Cregor: It seems to me that the report that has just been made is the most important that I have observed coming before the medical association for a long period of time. If it is in order I would like to move that this report be made a special order at some future time, say at a certain hour on Thursday morning, for discussion. It seems to me it is of great importance. If this motion is out of order I am glad to withdraw it. (No second.)

The Chairman: Would it not be better if the reference committee would set a time and invite everybody to come in and state their views on this particular report?

Dr. F. W. Cregor: Would it not be well for the chairman of that committee to fix the time and set the hour? The important thing is to have an expression from this House of Delegates.

STUDY COMMITTEE ON AID TO NEEDY PHYSICIANS

Referred to Reference Committee on Miscellaneous Business.

REPORT OF DELEGATES TO THE A. M. A.

Referred to Reference Committee on Reports of Officers.

READING OF COMMUNICATIONS

The following letter of appreciation was received from the National Youth Administration:

"On behalf of the National Youth Administration for Indiana, we wish to express our gratitude to the

members of the Indiana State Medical Association for their splendid cooperation and interest in the health program of the N. Y. A.

"Since April, 1941, over 2,000 out-of-school youth enrolled in the N. Y. A. have received health examinations in various localities over the State by reputable physicians selected by the county medical societies representing these localities. Everywhere, cooperation of the county societies has been excellent and there has been a high degree of interest shown by the physicians performing the examinations. Furthermore, recheck of the completed examination forms as they come into our state office shows that the work has been done thoroughly and well.

"No provision has been made by the National Youth Administration for the remedial care of physical deficiencies found at these examinations, but in numerous instances parents of these youth have come to us for direction and advice as to what should be done. This interest on the part of the parents is a commendable one as they not only wish to improve the health of their children, but also wish to have the work done by their family physician and with their own financial resources. In every instance they are directed to their family physician, and if they have none, a list of private physicians is supplied from which they may choose.

"When a youth goes to his family physician for remedial treatment of health impairments discovered during the examination, a copy of the youth's examination record is sent to the physician upon his written request. This provision has been made in order to safeguard the confidential nature of the health examination.

"We appreciate greatly your help and the splendid quality of your work in this program, and we hope that the work can go on in the same course as it has since its beginning. We wish to assure you that we are anxious to cooperate with you in every way so that the N. Y. A. health program will be effective and worthwhile. Any suggestions or criticisms you may have will be gladly received and will be given full consideration by us.

Sincerely yours,

Robert S. Richey, State Administrator.
J. Neill Garber, M.D., State Health Director.
Philip E. Acker, State Health Administrative Officer."

A letter of welcome from the Indianapolis Convention and Publicity Bureau was read.

The following telegram was received from Colonel Robinson Hitchcock, State Director of Selective Service System:

"Indianapolis, September 23, 1941.

"Dr. A. M. Mitchell, President
Indiana State Medical Association,
and Members in Annual Convention Assembled,
Claypool Hotel, Indianapolis.

"At the end of our first year of selective service operation we convey to all of you our sincere thanks for your contribution to this department of national defense. Your mobilization committee has cooperated generously and all of you have an outstanding record for unselfish and patriotic service. We deeply appreciate this spirit of mutual helpfulness. We extend our best of good wishes, individually and collectively."

NEW BUSINESS

DR. JOHN H. GREEN: At the request of the chairman of the Physical Therapy Committee I wish to offer this amendment to the By-Laws, Chapter VIII, Section 1:

"The following named committee to be inserted after the words, 'A Committee on Public Relations': 'A Committee on Physical Therapy.'

"Section 11: The Committee on Physical Therapy shall have as its duty to act as a liaison between the Indiana State Medical Association, the Indiana University School of Medicine, the American Congress of Physical Therapy, and the American Medical Association Council on Physical Therapy; to continue as a contact body with the American Congress on Physical Therapy, officially recognized by the A.M.A.; to act as an advisory body to the State officers in matters pertaining to physical therapeutic measures; to cooperate with both the Committee on Cults and that on Legislation relative to cult bills which have been and will continue to be presented before our State Legislature."

(This resolution was referred to the Reference Committee on Constitution and By-Laws.)

THE CHAIRMAN: At this time I will nominate Dr. Edgar F. Kiser to succeed Dr. James B. Maple as historian of the State Association. The vote will be taken Thursday morning.

On motion of Dr. Daniels, duly seconded, the House adjourned until Thursday morning at seven o'clock.

HOUSE OF DELEGATES

(Indianapolis Session 1941)

Second Meeting

The second meeting of the House of Delegates of the 1941 session convened in the Chateau Room of the Claypool Hotel, Indianapolis, at 7:45 a.m., Thursday, September 25th, the President, Dr. A. M. Mitchell, of Terre Haute, presiding.

On motion of Dr. Alfred Ellison, seconded by Dr. H. P. Ross, attendance slips were accepted in place of roll-call.

Dr. J. E. Ferrell, chairman of the Reference Committee on Credentials, announced 60 delegates present.

Attendance slips showed the following members present:

County	*Delegates*
Adams	Myron L. Habegger, Berne.
Allen	M. R. Lohman, Fort Wayne.
	W. C. Wright, Fort Wayne.
	M. B. Catlett, Fort Wayne.
Bartholomew	Robert B. Hart, Columbus.
Boone	Clarence Kern, Lebanon.
Carroll	C. C. Crampton, Delphi
Cass	B. W. Egan, Logansport.
Clark	E. P. Buckley, Jeffersonville.
Clay	H. H. Ward, Coalmont.
Clinton	M. F. Boulden, Frankfort.
Dearborn-Ohio	E. L. Libbert, Lawrenceburg.
	Robert M. Ferguson, Rising Sun.
Dekalb	W. W. Swarts, Auburn.
Delaware-Blackford	L. G. Montgomery, Muncie.
	Clay Ball, Muncie.
Dubois	H. C. Knapp, Huntingburg.
Elkhart	A. C. Yoder, Goshen.
Fountain-Warren	J. Carl Freed, Attica.
Fulton	A. E. Stinson, Rochester.

Gibson	Carl Clark, Oakland City.
Hamilton	C. M. Donahue, Carmel.
Hancock	J. E. Ferrell, Fortville.
Harrison	William E. Amy, Corydon.
Hendricks	J. C. Stafford, Plainfield.
Henry	R. L. Amos, Newcastle.
Huntington	C. S. Black, Warren.
Jackson	G. H. Kamman, Seymour.
Jefferson	N. A. Kremer, Madison.
Johnson	Oran Province, Franklin.
Kosciusko	O. H. Richer, Warsaw.
Lake	P. Q. Row, Hammond.
	C. R. Pettibone, Crown Point.
	R. M. Hedrick, Gary.
	F. A. Malmstone, Griffith.
Laporte	J. N. Kelly, LaPorte.
Lawrence	R. B. Smallwood, Bedford.
Madison	C. V. Rozelle, Anderson.
	Weir Miley, Anderson.
Marion	Walter F. Kelly, Indianapolis.
	M. V. Kahler, Indianapolis.
	E. O. Asher, New Augusta.
	Lacey L. Shuler, Indianapolis.
	Henry F. Nolting, Indianapolis.
	Ben B. Moore, Indianapolis.
	O. W. Sicks, Indianapolis.
	O. H. Bakemeier, Indianapolis.
	Roy A. Geider, Indianapolis.
	C. L. Rudesill, Indianapolis.
Marshall	A. A. Thompson, Tyner.
Miami	H. E. Line, Chili.
Monroe	Neal Baxter, Bloomington.
Montgomery	T. Z. Ball, Crawfordsville.
Noble	A. L. Fipp, Rome City.
Orange	George Dillinger, French Lick.
Parke-Vermillion	E. H. Dowell, Rockville.
Pike	John T. Kime, Petersburg.
Posey	W. E. Jenkinson, Mt. Vernon.
Rush	Willard Smullen, Rushville.
St. Joseph	A. S. Giordano, South Bend.
	G. M. Rosenheimer, South Bend.
	Erwin Blackburn, South Bend.
Shelby	W. D. Inlow, Shelbyville.
Sullivan	J. H. Crowder, Sullivan.
Tippecanoe	Earl Van Reed, Lafayette.
	Gordon A. Thomas, Lafayette.
Vanderburgh	Minor Miller, Evansville.
	P. E. Yunker, Evansville.
Vigo	O. R. Spigler, Terre Haute.
	R. G. Harkness, Terre Haute.
Washington	Claude B. Paynter, Salem.
Wayne-Union	H. P. Ross, Richmond.
	Leon T. Cox, Fountain City.

Councilors

First Dist.	I. C. Barclay, Evansville.
Third Dist.	W. H. Garner, New Albany.
Sixth Dist.	Samuel Kennedy, Shelbyville.
Seventh Dist.	C. J. Clark, Indianapolis.
Eighth Dist.	E. H. Clauser, Muncie.
Ninth Dist.	F. T. Romberger, Lafayette.
Tenth Dist.	James M. White, Gary.
Eleventh Dist.	Ira Perry, North Manchester.
Twelfth Dist.	H. L. Murdock, Fort Wayne.
Thirteenth Dist.	Alfred Ellison, South Bend.

Past Presidents

W. R. Davidson, Evansville.
E. M. Shanklin, Hammond.
Charles N. Combs, Terre Haute.
George Daniels, Marion.
Charles E. Gillespie, Seymour.
F. S. Crockett, Lafayette.
J. H. Weinstein, Terre Haute.
R. L. Sensenich, South Bend.
E. M. Van Buskirk, Fort Wayne.
Karl R. Ruddell, Indianapolis.

Officers

A. M. Mitchell, Terre Haute, president.
M. A. Austin, Anderson, president-elect.
A. F. Weyerbacher, Indianapolis, treasurer.
Thomas A. Hendricks, Indianapolis, executive-secretary.
Don F. Cameron, Fort Wayne, delegate to the A. M. A.
Norman M. Beatty, Indianapolis, alternate delegate to the A. M. A.

THE CHAIRMAN: There being a quorum present I declare the House of Delegates open for the transaction of business. The first order is election of officers.

ELECTION OF OFFICERS

Election of officers resulted as follows:

President-Elect:	C. H. McCaskey, Indianapolis
Treasurer:	A. F. Weyerbacher, Indianapolis
Delegates to A.M.A.:	Don F. Cameron, Fort Wayne (2 yrs.)
	F. S. Crockett, Lafayette (2 yrs.)
Alternates:	N. M. Beatty, Indianapolis
	A. M. Mitchell, Terre Haute
Historian:	Edgar F. Kiser, Indianapolis

PLACE OF MEETING

Place of meeting for 1942: French Lick

DR. M. A. AUSTIN: There is a matter concerning the office of Historian that I feel the House of Delegates should consider. There is an enormous amount of work connected with that office. I talked with Dr. Kiser last night and he said he could not take care of it unless he had assistance—a stenographer or secretary who could do the work that is to be done to make it worth while. I merely make the statement that for a worthwhile job it will take someone who will do a lot of hard work, and we cannot impose that on Dr. Kiser. I feel it should be a matter of the House recommending to the Council that a modest appropriation, if necessary, be made to take care of the work that must be done.

THE CHAIRMAN: At this time I am happy to present your President-elect, Dr. McCaskey.

DR. C. H. MCCASKEY: This honor is something that comes to a person once in a lifetime. I feel a very great obligation and responsibility in following the examples set by your former presidents. If I perform the duties of president as well as they have, I shall be very happy.

Election of Councilors:

First District, I. C. Barclay, Evansville

Fourth District, J. C. Elliott, Guilford (no election yet)

Seventh District, C. J. Clark, Indianapolis (no election yet)

Tenth District, N. K. Forster, Hammond

Thirteenth District, Alfred Ellison, South Bend. (no election yet)

REPORTS OF REFERENCE COMMITTEES

Sections and Section Work

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The members of your Committee on Sections and Section Work find the scientific exhibits most interesting and instructive. We recommend the approval of this exhibit and feel it should continue to be a part of our annual program.

M. R. Lohman, *Chairman,*
G. H. Kamman,
Neal Baxter,
R. Lee Smith,
Erwin Blackburn.

On motion of Dr. Lohman, seconded by Dr. Daniels, this report was adopted.

Rules and Order of Business

As nothing was referred to this committee, the committee had no report to make.

Medical Education and Hospitals

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your committee recommends that the report of the Permanent Committee on Medical Education and Hospitals, as it appears in the Handbook, be approved.

J. T. Oliphant, *Chairman,*
Oran Province,
Robert Pierson,
John H. Warvel,
A. W. Cavins.

On motion of Dr. Crowder, seconded by Dr. Rozelle, this report was adopted.

Public Policy and Legislation

House of Delegates,
Indiana State Medical Association.

Gentlemen:

(1) **Report of the Committee on Public Policy and Legislation.** We recommend the adoption of the report of the Committee on Public Policy and Legislation; also the supplementary report given by the co-chairman, Dr. Norman Beatty, at the Tuesday afternoon session. We heartily commend the activities of this committee and particularly the untiring efforts of the co-chairmen, Doctors Norman Beatty and William Wright, during the last session of the Legislature.

(On motion of Dr. Dillinger, seconded by Dr. Daniels, the above section of this report was adopted.)

(2) **Report of the Committee on Civic and Industrial Relations.** No report.

(3) **Report of the Permanent Study Committee on Health Insurance.** Your Committee recommends the adoption of the report of the Permanent Study Committee on Health Insurance and wishes to bring to your attention the following statement contained in the report:

> "It might be pointed out that a great lesson could be learned from the past few years, in that preparations should be made now, by the medical profession, to devise plans to handle our problems when the defense program no longer proves a stop-gap for the socialistically-minded, and before the 'veterans' of the present conflict present additional problems."

Your committee also recommends the continued activity of this committee.

(On motion of Dr. Dillinger, seconded by Dr. Lohman, Section No. 3 of the report of the Reference Committee on Public Policy and Legislation was adopted.)

(4) **Report of the Advisory Committee to the Bureau of Maternal and Child Health of the Indiana State Board of Health.** Your committee commends the activity of the Advisory Committee to the Bureau of Maternal and Child Health and recommends the adoption of this report, with the following change made in paragraph No. 3 which was printed in the Handbook as follows:

> "3. The question of handling the problem of maternity work in quarters connected with the general offices of private physicians was left unsettled. We recommend this problem for solution at a later date after a discussion of the question at the State meeting. The committee does not approve the present arrangement occasionally found, in which deliveries are made in quarters attached to an office for general practice."

The reference committee recognizes the difficulty with which this problem may be approached by the standing committee. However, the committee feels that the activities of general practitioners who are trying to elevate the standards of medical care in the handling of obstetric patients should be commended. Therefore, your committee recommends the following substitution for paragraph No. 3:

> "3. It is advisable that minimum standards be set up for the licensing of small maternity hospitals which may or may not be attached to an office for general practice. It is recommended that the standing committee, with the Bureau of Maternal and Child Health, set up such minimum standards after consultation with a group of general practitioners who maintain small maternity hospitals."

Your reference committee recommends that whenever feasible the licensing of hospitals and maternity homes should be a function of the State Board of Health.

(On motion of Dr. Dillinger, seconded by Dr. Kelly, Section 4 of the report of the Reference Committee on Public Policy and Legislation was adopted.)

(5) **Report of the Director of Research on Sickness Insurance.** Your committee recommends the adoption of this report. The Association is to be congratulated in having Dr. W. U. Kennedy, who has spent so many years of untiring effort working on the problem of sickness insurance, serving it in this capacity.

(On motion of Dr. Dillinger, seconded by Dr. Daniels, Section 5 of the report of the Reference Committee on Public Policy and Legislation was adopted.)

(6) **Report of the Subcommittee to Study Maternal Morbidity and Mortality Rates for Indiana.** Your Committee recommends that the report of the Subcommittee to Study Maternal Morbidity and Mortality Rates for Indiana be adopted and that the Subcommittee be discharged as they have requested in their report.

(Motion seconded by Dr. Daniels and carried.)

(7) **Report of the Liaison Committee of the Division of Services for Crippled Children.** Your reference committee recommends the adoption of this report.

(Motion seconded by Dr. Daniels and carried.)

(8) **Report of the Committee to Study Cultists and Irregular Practitioners.** Your reference committee recommends the adoption of the report of the Committee to Study Cultists and Irregular Practitioners as printed in the Handbook.

(Motion seconded by Dr. Daniels.)

(Dr. Claude B. Paynter spoke against section 8 of the reference committee's report and moved that the motion be tabled. Motion seconded by Dr. Catlett. Rising vote showed 33 for and 30 opposed. The chairman declared the motion lost.) (Vote on the original motion.)

(Dr. Norman M. Beatty discussed the question of annual registration, saying, "We do not want any misunderstanding whatever about what the official groups representing you are going to do on this issue, and I can assure you that there will never be any action taken to bring about annual registration until this House, 100 per cent, insists upon that action being taken.")

(Vote upon the original motion carried.)

(9) **Report of the Medical Relief Committee.**

Your reference committee considered the report of the Medical Relief Committee and the additional information presented to the House by Dr. Claude Paynter of Washington County, in detail. Mr. Virgil Sheppard, of the State Department of Public Welfare, and Mr. Albert Stump, the attorney for the Association, were present at the meeting of the reference committee. Many members of the House and other interested physicians also attended the session. The reference committee wishes to emphasize the importance of the report of the Medical Relief Committee and commends the activities of its chairman, Doctor John S. Leffel, and recommends the acceptance of the report of the committee. The reference committee further recommends that the said committee be continued, and that it be given authority to cooperate with, to counsel and to assist the State Department of Public Welfare in formulating rules and regulations regarding medical relief supplied by that Department, to the end that such rules and regulations shall incorporate in general the following principles:

1. That there be as full and complete local control through county medical societies and county welfare boards as is possible, consistent with the laws under which federal and state funds for medical relief are obtainable.
2. That the physician-patient relationship be preserved as fully as possible within the requirement of the laws which may have to be met.
3. That the welfare of the patient always be of prime importance and be given first consideration in the administration of the welfare program.
4. That the cordial relationship and spirit of cooperation between the State Department of Public Welfare and the medical profession be preserved and encouraged.

(On motion of Dr. Dillinger, seconded by Dr. Smallwood, Section 9 of the report of the Reference Committee on Public Policy and Legislation was adopted.)

George R. Dillinger, *Chairman*,
E. H. Dowell,
E. P. Buckley,
B. W. Egan,
D. A. Morrison.

Dr. George R. Dillinger: I move the adoption of the report as a whole. (Motion seconded by Dr. Clark and carried.)

Dr. H. P. Ross: I move that Dr. Dillinger's committee be commended for their report. (Motion carried.)

Publicity

House of Delegates,
Indiana State Medical Association.

Gentlemen:

One report only was referred to this committee, that of the Bureau of Publicity.

We note the tribute paid to Doctor William N. Wishard, the first and until now the only chairman of this Bureau. The files of The Journal of this Association, recording his voluminous work, and the thousands of releases and newspaper clippings, would in themselves be his enduring monument; but the real shrine erected to his memory is found in the hearts of the Hoosier doctors who worked with him and shared his friendship.

Leaving the past with its splendid record, we express our utmost confidence in the new chairman, Dr. H. G. Hamer. The present Bureau is thoroughly steeped in the philosophy and ethical standards of its former leader and promises to vie with the enviable achievements which already

have made Indiana a noteworthy pioneer in this field.

Chas. N. Combs, *Chairman*,
A. E. Stinson,
C. S. Black,
Walter F. Kelly,
W. D. Inlow.

On motion of Dr. Combs, seconded by Dr. Daniels, this report was adopted.

Hygiene and Public Health

House of Delegates,
Indiana State Medical Association.

Gentlemen:

The Committee on Hygiene and Public Health has reviewed and studied the various committee reports assigned to it and desire to take up with the House of Delegates these reports separately for your consideration, with the recommendations of this committee.

First: Report of Committee on Study of High School Athletics, page 72 in your Handbook. The report of this committee shows progress since its inception. We move the adoption of this report as printed.

(Motion seconded by Dr. Clark and carried.)

Second: Report of Committee on Mental Health, page 73. The report of this committee shows that while only one meeting was held, the members understand the problems concerning their work, and this committee moves the adoption of the report as printed.

Third: Report of Committee on Prevention of Traffic Accidents, page 75. The committee deems it unfortunate that so important a committee has failed to make a report of their deliberations to the Association. The chairman of that committee, Dr. Topping, wrote a splendid article on the subject which was printed in The Journal, and while we commend him for his study, we feel that the Association is entitled to a printed report of the committee's activities and recommend that the Association in the future demand of its committees a report to the House of Delegates for its consideration.

Fourth: Report of Committee on Control of Cancer, page 82. This committee has worked for the past two years and the members have rendered their best judgment in this report. Your committee feels that the recommendations of this committee deserve a fair trial, and therefore I move its adoption.

(Motion seconded by Dr. Daniels, and carried.)

Fifth: Report of Committee on Venereal Diseases, page 105. The report of this committee has pointed out the tendency of the federal government to influence control over some phases of activity of the State Board of Health. We feel that the committee is within its rights in asking for a review by the State Board of Health and the U. S. Public Health Service relative to charges made in their report, and commend them for the recommendations made. Therefore, your committee moves the adoption of this report.

(Motion seconded by Dr. Daniels.)

Minor Miller, Evansville: The thing the Committee on Venereal Diseases objected to was the removal of the clause on the serology card that was adopted by this House of Delegates at the session of 1937. The physician sending in the serology test signed a statement that the circumstances of the examination were such that he felt it should be made without charge. Following the 1937 session the Surgeon General of the Public Health Service accepted that statement to be put on the card in January, 1938, at a meeting between the Venereal Disease Committee and himself in the old State Board of Health building. Indiana is not the only state that has that sort of statement. On the reverse of the pre-marriage form for Pennsylvania there is this statement signed by the physician: "This is to certify that (applicant's name) is unable to pay for the standard pre-marital serology test in an approved laboratory." The Ohio law, passed by their 1941 Legislature and effective August 18, 1941, has this to say in that regard: "Such laboratory tests as are required to be made by this Act shall, on request of the physician submitting the sample and on his certificate that the applicant is unable to pay, be made without charge by the State Board of Health."

The Indiana State Board of Health reports to us that the Public Health Service, that has control of the funds for control of venereal disease, has told them they can either remove this clause or they will no longer participate in federal funds. There are at the present time available for matching purposes in Indiana $165,516.04 of venereal disease federal funds, including cash carry-over. State and local matching funds available amount to $101,878.48. In many cases part of the funds marked for communicable disease items locally are used for venereal disease purposes.

Now this is not the entire venereal bill. As an example, in Evansville we are not expecting to participate in federal funds, but we are spending somewhere in the neighborhood of $12,000.00 a year of our own funds. The Committee on Venereal Disease feels that as the Federal Government is putting up the smaller portion of the funds, they do not deserve the whole say, nor should they be allowed to hold the whip-hand over us. We certainly feel that this action should be protested.

Dr. A. S. Giordano: We, as physicians and pathologists, deeply appreciate the interest and sincerity with which the syphilis committee has carried out the program of the syphilis campaign.

Just to refresh your memory, when the syphilis campaign was inaugurated in 1937, the Indiana State Medical Association established a special committee on syphilis in order to cooperate with the United States Public Health Service. At that time, one of the first actions of the committee was to consult with the Indiana Association of

Pathologists to see what could be done to help the syphilis program along. The pathologists immediately offered to perform a precipitin test for syphilis for one dollar, thus making the test generally available with the marked reduction of from five to one dollar. As a result of this change, there was an immediate increase in the number of tests performed, uncovering many heretofore unrecognized cases of syphilis. The State Board of Health, during this period, was cooperating with the program in making it known, whenever possible, that the services of the State Board of Health were limited to those patients who were either indigent or found it difficult to pay for the services rendered, and this statement was added to the physician's card.

Out of a clear sky this spring came an order from Washington to the Board of Health, that the syphilis card be completely removed; otherwise federal funds would be refused. This sudden demand placed the State Board of Health in an embarrassing position and they consulted with some of the members of the State Association of Pathologists and the Executive Committee of the Indiana State Medical Association, but unfortunately, the Committee on Venereal Disease was not consulted before the action was taken to withdraw the card completely. In this, we feel, the State Board of Health acted in good faith, but, on the other hand, it endangered the cooperation between the State Medical Society and the State Board of Health. We feel this card in itself did not in any way interfere with the syphilis program, and it did help in keeping the younger men who were coming into the practice of medicine aware of the fact that the facilities of the State Board of Health should be limited to only those who were unable to pay. As a matter of fact, any of the functions of the State Board of Health should be so limited, whether for syphilis or any other communicable diseases. This principle has been accepted by the United States Public Health Service and is functioning in many other states. Also, it is well known, that even this year, the Ohio State Legislature passed a marriage law which excludes definitely anyone able to pay for the syphilis test to the services of the State Board of Health laboratories. The same is true of Kansas and some other states, as well. Therefore, I feel, that the recommendation of the committee should be approved and the report of the reference committee which asks that the State Board of Health reconsider the action of withdrawing the syphilis card be accepted.

Dr. R. L. Sensenich: At the time this question came up in Kansas an appeal was made to the American Medical Association, and at that time an executive of the Public Health Service seemed to be surprised and said he did not know pressure had been put upon the various states. When the correspondence was reviewed compliance was not required; but free Wassermanns were still discussed. Kansas refused to comply, several other states took the same position, and at that time the Public Health Service no longer pressed it.

The serious problem is the great shortage of men trained in pathology and bacteriology. One reason is that from time to time particular items of laboratory work, which may be done locally and do provide a considerable income for the local pathologist, have been taken away to a central state laboratory. As a consequence there is less and less incentive toward the establishment of laboratories in communities where they are greatly needed. There are many more medical needs for laboratory work other than syphilis tests, and the community suffers because facilities are not available for these other needs.

How far the federal government may see fit to withhold aid to states is questionable at the present time. I would not want to advise that we decline to meet that requirement, but at least it would seem a possibility to be considered.

Dr. Minor Miller: Dr. Vonderlehr was in Indiana last week and Dr. Culbertson talked to him. He said they either took it off or they did not get public funds.

(Vote on the motion to adopt the above report, carried.)

Sixth: Report of Committee on Industrial Health, page 86. The report of the members of this committee has given serious consideration to the work assigned them, and without further comment we move its adoption.

(Motion seconded by Dr. Clark and carried.)

Seventh: Report of Anti-Tuberculosis Committee, page 92. The members of this committee feel that the work assigned the personnel should meet with your approval and I now move its adoption.

(Motion seconded by Dr. Clark and carried.)

Eighth: Report of Committee on Conservation of Vision, page 93. Your committee feels that the work of this committee should be encouraged, and it asks the adoption of the report as printed.

(Motion seconded by Dr. Daniels and carried.)

Ninth: Report of Pneumonia Committee, page 94. Your committee asks the adoption of this report.

(Motion seconded by Dr. Daniels and carried.)

Claude Paynter, *Chairman*,
Minor Miller,
S. M. Cotton,
H. P. Ross,
William Weaver.

Dr. Claude B. Paynter: At this time the Reference Committee wants to express its appreciation for the helpful suggestions of the many committee members, and I, personally, want to express my thanks to the members of the Reference Committee who have made possible this report.

I move the adoption of the Report of the Reference Committee on Hygiene and Public Health

as a whole. (Motion seconded by Dr. Daniels and carried.)

The Chairman: At this time I wish to introduce Dr. Jonathan Forman of Columbus, Ohio, editor of the *Journal of the Ohio State Medical Association*. We would like to have a few words from him.

Dr. Jonathan Forman: It is a pleasure to be here. I have no message and I do not want to interfere with the deliberations of the body. We have had a splendid time.

The Chairman: I wish also to introduce George ("Scotty") Savelle, assistant secretary of the Ohio State Medical Association.

"Scotty" Savelle: A couple of weeks ago the secretary and I were getting ready to make up a program for a meeting of the committee on scientific work, and he said, "I have never been to a state meeting in Indiana." I said, "Let's go to Indianapolis; maybe we can steal some ideas from Tommy Hendricks. The Senator does everything well." It has been a pleasure to be here and we have picked up several items that you may see at the Ohio State meeting next spring.

The Chairman: I wish to announce the registration at this time. It is the largest we have ever had. The largest previous to this was in Indianapolis in 1934, when it was 1814. Up to about fifteen minutes ago this year's attendance is 1817.

Amendments to Constitution and By-Laws

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Reference Committee on Amendments to the Constitution and By-Laws begs to make the following report:

In view of the splendid and important work accomplished by the Committee on Physical Therapy, we hesitate to criticize any suggestion proposed by it.

Standing Committees created by the Constitution and By-Laws were created for administrative and executive activities of the association only. We, your reference committee, feel there should not be any specialized standing committees specified in the Constitution or By-Laws, because the creation of any one such committee thereunder would open the way to any or all specialized committees for like treatment. Therefore, we do not recommend the adoption of this resolution. But we do heartily recommend to the President and the Executive Committee the continuance of the Committee on Physical Therapy for an indefinite period, to such time as, if and when its work may have been, if ever, completed.

We recommend the adoption of this report.

J. H. Weinstein, *Chairman.*
Ben B. Moore,
Weir M. Miley,
Max Adams,
L. G. Montgomery.

Dr. Weinstein's motion was seconded by Dr. Clark, and the report was adopted.

Reports of Officers

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Committee on Reports of Officers has heard the President's address, seen the President-elect introduced, read the reports of the Executive Secretary, the Treasurer, the Chairman of the Council, the Editor of The Journal, and the A.M.A. delegates, and has considered the comprehensive report of the Executive Committee. We endorse these reports.

This committee realizes that these few printed pages are merely a summary of a long year's activities requiring a vast amount of the time, attention and effort of our officers, and we feel that this is the time for us, as members of this committee, and as members of the Association, to express to them our appreciation of their loyalty to the medical profession and our confidence in their continued efforts to further safeguard and advance the interests of the physician.

We recommend the adoption of the reports of officers as printed in the handbook.

O. H. Richer, *Chairman.*
Austin Sweet,
P. E. Yunker,
Clancy Bassett,
Carl M. Clark.

On motion of Dr. Richer, seconded by Dr. Clark, this report was adopted.

Credentials

Dr. J. E. Ferrell: We have no further report to make.

Miscellaneous Business

House of Delegates,
Indiana State Medical Association.

Gentlemen:

Your Reference Committee on Miscellaneous Business wishes to submit the following report:

Committee on Arrangements

The reference committee wishes to commend and to thank the Committee on Arrangements for the very splendid way in which provision was made for the various activities of the Association. Also, we wish to thank the local fraternity for the hospitality and many courtesies extended.

(On motion of Dr. Yoder, seconded by Dr. Daniels, this portion of the report was adopted.)

Committee on Secretaries' Conference

The Committee on Secretaries' Conference has made a brief and clear report of the meeting held in Indianapolis last January. Your committee fully endorses the activities of these meetings and recommends the adoption of the report as found on page 64 of the Handbook.

(On motion of Dr. Yoder, seconded by Dr. Daniels, the report was adopted.)

Committee on Necrology and History

We approve the report as printed in the Handbook and move its adoption.

(Motion seconded by Dr. Daniels and carried.)

Committee on Indiana Inter-Professional Health Council

Questions of vital importance are discussed in this report and it is indicated how difficult is the task to find proper solution of the problems involved. The reference committee recommends the approval of the report and a continuation of the committee.

(On motion of Dr. Yoder, seconded by Dr. Daniels, the report was adopted.)

M-Day and Veterans' Affairs Committee

Your reference committee approves the report of the M-Day and Veterans' Affairs Committee as printed in the Handbook.

With respect to the supplementary report submitted by Dr. Bird, your reference committee wishes to make the following comments. The new method of examining selectees presumably provides advantages for the selectee and a saving of time for the local examiner. How there is a saving of time for the local examiner is not apparent from the supplementary report.

Upon assurances from those in authority that there will be specific instructions furnished local examiners as to the operation of the new plan different from the old plan, we, your reference committee, approve the report as a whole and move its adoption.

(Motion seconded by Dr. Clark.)

Dr. R. L. Sensenich: This morning's papers say that the American Medical Association is for all-out war aid—America should give all-out aid. However you may want to interpret that, the American Medical Association is not for all-out war, nor for all-in war, nor for or against any war. The one thing the American Medical Association is trying to do is to protect the interests of the doctors who are or will be medical officers in the army, and we stand on no other basis.

My reason for entering in this discussion is some figures that were given by Doctor Rankin, and I would like to break these down for Indiana. As a matter of fact, they are not given out for publicity. This is the original report and there is only one carbon.

So far as Indiana is concerned, in a population of 3,416,152 we have 4,177 doctors. One thousand seven hundred and twenty-nine, or 41.4 per cent are over fifty-five years of age. There are199 medical men who have been designated by the county societies as indispensable to the communities and not available for military service. Many of the county societies expressed unwillingness to specify anyone as being indispensable; they said they did not feel competent to do that, so that these 199 men represent the lesser number of county societies. That leaves available a total of 2,188 today under 55 years of age, a fraction over 52 per cent. There is a variation in some states of the number available because of the small number of physicians in less well populated states, and in the mountains, and in poor districts. In some instances this falls to 22 per cent, as in Mississippi. In some others it rises, as in New York, to 71 per cent. We seem to be about halfway between. What does this mean to us? Out of 2,188 doctors available under fifty-five years of age, Indiana's proportion as to the entire population is somewhere about one thirty-ninth—we will say one-fortieth. Under the proposed set-up Indiana may be asked to supply 1,000 doctors under fifty-five years of age. We now have 340 in service, which leaves 640 medical officers to be developed from the available total of something less than 2,188 doctors, or one in every three doctors in the State of Indiana under fifty-five years of age.

A resolution proposed by the Committee on Military Preparedness advised that a procurement agency should be set up. It was approved, but has not been set up yet. Some changes in method will probably have to be made before anything can be done. Some medical officers should be accepted for the emergency and not necessarily for five or six years; this applies to grades beyond first lieutenant. A change must be made in regard to the number of medical men requested from each corps area, because in areas having no large cities they do not have as many doctors available as in New York and other large medical centers. There is a great shortage of neuropsychiatrists, pathologists, orthopedic surgeons, neurosurgeons, and some others.

This is the picture. You are entitled to know it. The American Medical Association cannot change the fact that if we are to have an army of any size we must have more medical men. A method of selective service for doctors has been suggested. We are concerned to see that any legislation that is introduced will follow the line of the resolution, and also see that whatever selective machinery is set up shall apply only to men needed for medical service in the army and navy. The civilian community must be protected against removal of all its physicians. Whatever mechanism is set up should be manned by civilian physicians and not by some other groups who might wish to have the entire medical profession at their disposal by some sort of draft mechanism.

One other thing I want to make clear. The inventory in the hands of the American Medical Association at present is very complete. Out of 175,000 doctors we have at present material regarding something over 160,000. Fifty-eight thousand six hundred and sixty-six physicians over 55 years of age and 99,496 under 55 years. This material has been submitted by the physician himself and then re-checked by other men in his community or by men in his specialty. That information is strictly confidential and will not be given to anyone except to the proper agency to assist in plac-

ing the man in the particular field for which he is best fitted and in which he obviously would be most anxious to serve.

I should like to request the privilege of the floor for the head of the M-Day Committee, Col. C. R. Bird.

(Taken by consent.)

Col. C. R. Bird: Mr. Chairman and Gentlemen: In accordance with what Doctor Sensenich has just said to you, and what Doctor Rankin said last night, whatever may be the individual opinion of any man or any group of men, I think you will all agree that we are confronted with rather serious conditions. The international, and therefore the national, situation is such that it requires the attention, demands the attention, of thinking people.

When the Selective Service Act went into effect, as a matter of fact the morning before it was enacted, there was on the desk of the Adjutant General of this state a full and complete list of suggested appointees in connection with the Selective Service Act operation for more than 400 men in this section. The result was that the medical profession of Indiana had its affairs, so far as selective service was concerned, within its own hands. Therefore there were no quacks, no charlatans, no politicians appointed on any of these boards, as happened in other states. I think you will all agree that is a very desirable situation.

Now we are confronted with perhaps a similar situation in connection with meeting the other needs for medical personnel in the armed forces and other agencies pertinent to the national situation.

I understand there was some confusion in the supplementary report. If that is true it is ambiguity of the language. That report was not written until about twenty minutes before I submitted it because some information had come to me only an hour before. That is how fast things are happening.

We are reduced to the point in this state, insofar as reserve officers are concerned, where there are about five reserve officers left in the State of Indiana, and three of those are beyond military age. Now if we mobilize for war, say four or five million men, you know for each one thousand men in the armed forces it requires six and a half doctors—but whether we mobilize for war or not, I think it is a foregone conclusion that at the end of next year, a little more than a year from now, we will have an additional 1,400,000 men in the army, not to speak of the navy, public health service, veterans' bureau (1,600 doctors there)—we will have at the end of next year 2,800,000 men under arms. That will require a proportionate number of doctors to what we have now. There are between 340 and 350 doctors from Indiana in service now. As Doctor Sensenich said, if we mobilize it means that one out of every three in Indiana of military age are going into service in some way or other. It is a question then for the medical profession—do we want to anticipate the emergency and provide an agency whereby it may be possible for them to keep the destiny of the medical profession within its own ranks, or do they want to sit by and hope against hope, or indulge in wishful thinking until the emergency is on us and perhaps such an agency is taken care of by those who are not any too friendly toward organized medicine? If, then, we are reduced to the status of five reserve officers in the State of Indiana, how are we going to meet the needs of the additional selective service, because, as Doctor Sensenich has said, one thirty-ninth of the medical needs of the armed forces must come from Indiana. I think then you will admit that whatever may develop, we should consider the seriousness of the situation. It is a responsibility that should be spread over the state; it is not one that can be delegated to a small committee. I think we might consider the possibility, or the advisability, of authorizing some group, perhaps the Council of the State Medical Association, to take steps toward the study, perhaps even providing the machinery to set up some method of meeting the needs when the call comes through the American Medical Association to the State Medical Association for additional medical personnel. Who is going to say that Dr. A shall go and Dr. B shall not? That they shall do this or do that? We know we can not do that in fairness to everybody, including ourselves. I just want to impress upon you the seriousness of the situation and call your attention to a few facts and figures.

Doctor Rankin said last night there were something over one hundred reserve officers left in Indiana. That information is out of date. As I said, my original report, written August first for publication, has to be amended now. My information of day before yesterday is that the supply of doctors, so far as reserve officers are concerned, is exhausted. Now how are you going to meet the needs of tomorrow, next week, and the next few months? There will be required a great many doctors from Indiana next year, whether we mobilize or whether we do not. Do you not think some provision should be made to take care of the situation and keep our destiny, so far as possible, within the organized profession?

Dr. F. T. Romberger: Despite my reluctance to enter into a controversy such as this, I think the House of Delegates should have certain facts placed before them. We have heard that there are only five available reserve officers in the State of Indiana. I question that. You mean absolutely perfect specimens. Two doctors in Lafayette, plucky fellows, were in ten days and were sent home because they were over-weight ten or fifteen pounds. Those men were in better condition physically than I was when I served two years in the last war. They did not measure me so carefully—they just looked at my tonsils and teeth and said, "You are in the army." Two of these

men have not yet been established in practice; they are just recent graduates, marvelously trained, graduates of A-1 schools, have had good training as interns and residents, they are willing and anxious to serve, but yet they have been sent back and placed on inactive duty. Of course we will never get sufficient doctors that way.

One thing more. I do not know how many read the resolution introduced by Dr. Abell last year in Cleveland. I was not there, but I read it in the *Journal of the A.M.A.*, and in June, 1941, this resolution was published. I talked to the Vice-President of the American Medical Association recently, and to a delegate at the same time, and I asked what had become of this resolution. Neither of them knew what had become of it, but I have since learned it is being worked on quietly. I want to read you one part:

"Resolved, That the United States government be urged to plan and arrange immediately for the establishment of a central authority with representatives of the civilian medical profession to be known as the Procurement and Assignment Agency for Physicians for the Army, Navy, and Public Health Service and for the Civilian and Industrial needs of the nation."

I want to analyze that. This was adopted by the House of Delegates of the A.M.A. They have started work on this and the set-up is absolutely perfect. I have no doubt the authorities in Washington will cooperate with us to a certain extent, but you must have greater faith than I in their word as to what they are going to do after it is organized. Last night this resolution was read, but it went only so far as to say "to be known as the Procurement and Assignment Agency for Physicians for the Army, Navy, and Public Health Service," and did not add the other part of the sentence, "and for Civilian and Industrial needs of the nation." Looking at it objectively, if it were put under the OPM they will control the medical profession and they will control every civilian from the unborn child up.

I do not know whether we are going to get into war, but I do know that we are being ruled by intrigue, and I have no doubt in my mind—this is my own personal opinion—that it is not so much how far we go in any one step, but rather in what direction are the steps being taken. It is my opinion that when this Procurement and Assignment agency is nicely worked up—the government has the right and will demand of us military service. and I am in favor of that, but the government will have a right to demand these records which are complete and are private—private today, tomorrow, next month maybe, perhaps a year from now, but will they always be private? I present that to you as something to think about.

George R. Dillinger: I beg the indulgence of the House of Delegates. Dr. Romberger read only one part of the resolution presented to the House of Delegates of the A.M.A. I would like to read the entire resolution as it was presented in Cleveland.

"Whereas, The President of the United States has declared that we are in a state of unlimited national emergency, and the Surgeon General of the United States Army requested the American Medical Association in June, 1940, at the annual session to aid in the procurement of the necessary personnel for an army of 1,500,000 men; and

"Whereas, The American Medical Association established a Committee on Medical Preparedness which has now on hand the records of approximately 150,000 physicians as well as a statement as to their training, experience and specialization; and

"Whereas, The sudden entrance of the United States into a war might immediately require the services not only of the physicians already called to duty, but of a very considerable additional number; and

"Whereas, Neither the American Medical Association nor any other civilian agency has the responsibility or the authority for the selection of those physicians who would be necessary for immediate duty and who would be called from civilian practice into service with the military agencies; therefore be it

"Resolved, That the United States government be urged to plan and arrange immediately for the establishment of a central authority with representatives of the *civilian* medical profession to be known as the Procurement and Assignment agency for physicians for the Army, Navy, and Public Health Service and for the Civilian and Industrial needs of the nation.

"This recommendation is made to avoid or minimize confusion and the inevitable delay which would result from the lack of such an arrangement. It is further recommended by the Committee on Medical Preparedness that, if this resolution is approved by the House of Delegates, a copy of it be sent to the President of the United States, the Secretary of War, the Secretary of the Navy, the Chairman of the Senate and House Committee on Military Affairs, the Administrator of the Federal Security Agency, The Surgeon General of the United States Army, the Surgeon General of the United States Navy, the Surgeon General of the United States Public Health Service, the Adjutant General of the Army and the Health and Medical Committee."

(Vote on adoption of that portion of Dr. Yoder's report, carried.)

Committee on Physical Therapy

The committee reports that forty per cent of the membership responded to a questionnaire relative to the value of physical therapy. The committee calls attention to the fact that our profession is deplorably unprepared to respond to the current demand of military authorities for adequately

trained personnel in this field. The committee appreciates many of the problems involved in disseminating this education and has made every effort to become familiar with facts, working in cooperation with the Council on Physical Therapy of the American Medical Association.

In a supplemental report to the House of Delegates on Tuesday it recommends the formation of a liaison committee from the Indiana State Medical Association to work in cooperation with the Council on Physical Therapy of the American Medical Association and other organizations interested in this field.

Your committee recommends the adoption of the report as found in the Handbook and also the supplemental report.

(This motion was seconded by Dr. Daniels and carried.)

Study Committee on Aid to Needy Physicians

As the committee has reported, after as thorough an investigation as can be made at this time, there seems to be no need for immediate action. The committee should be continued so that no old physician should come to want.

A. C. Yoder, *Chairman*,
A. A. Thompson,
J. S. Robison,
E. O. Asher,
B. V. Lally.

On motion of Dr. Yoder, seconded by Dr. Daniels, the last-named report was adopted.

Dr. A. C. Yoder: I move the adoption of the Report of the Reference Committee on Miscellaneous Business as a whole. (Motion seconded by Dr. Daniels and carried.)

New Business

On motion of Dr. Daniels, seconded by Dr. Dillinger, the Council was authorized to formulate a committee such as recommended by Colonel Bird, to make a study of how to handle the situation in regard to obtaining more men for medical service, if necessary.

The following resolution was offered by Dr. E. O. Asher, New Augusta:

Whereas, The Secretary of the Treasury of the United States has now announced plans in which American citizens may aid in financing the National Defense Program by the purchase of Defense Savings Bonds and Stamps; and

Whereas, The Indiana State Medical Association has pledged its whole-hearted support of the National Defense Program; therefore

Be It Resolved, That the Indiana State Medical Association and its members pledge their assistance in carrying out this program to help finance the National Defense Program, by buying Defense Savings Bonds and Stamps and cooperating with their Defense Committee in the respective cities and counties.

W. F. Kelly,
E. O. Asher.

(On motion of E. O. Asher, seconded by Dr. Clark, this resolution was adopted.)

Dr. W. R. Davidson: I move that the thanks of the Indiana State Medical Association be extended to the Indianapolis Medical Society, the members, their wives and families, for the splendid entertainment and many courtesies offered the visiting members; also to the Indianapolis Convention Bureau, the Scottish Rite Cathedral, Murat Temple, the Claypool Hotel, the Indianapolis *News*, *Star*, *Times* and various press services; also that we express our appreciation of the valuable services of the retiring president, Dr. A. M. Mitchell.

(Motion seconded by Dr. Daniels and unanimously carried.)

At the suggestion of Dr. H. P. Ross, and on motion of Dr. Daniels, the Secretary was instructed to send a message from the Association to Dr. Will A. Thompson, of Liberty, expressing best wishes for his speedy recovery.

At this time the retiring president, Dr. A. M. Mitchell, called the newly elected officers and delegates to the platform.

President A. M. Mitchell: Before we adjourn I want to thank all of you for your courtesy and cooperation during the past year. I have had a splendid time, and I am willing to do anything I can in the future to be of service. All you have to do is call upon me.

(On motion of Dr. Daniels, the House of Delegates of the 1941 session adjourned.)

INDIANA STATE MEDICAL ASSOCIATION

GENERAL MEETINGS

First General Meeting, September 24, 1941

The first General Meeting convened at 9:30 a.m., Wednesday, September 24, 1941, in the Assembly Room of the Claypool Hotel, Indianapolis, with the president, Dr. A. M. Mitchell, Terre Haute, presiding. He introduced Dr. J. O. Ritchey, president of the Indianapolis Medical Society, who extended greetings on behalf of that Society and the physicians of Marion County. Dr. Charles F. Thompson, chairman of the Committee on Convention Arrangements, also welcomed the members of the Association.

Dr. A. M. Mitchell, of Terre Haute, delivered the President's Address.

The following scientific program was then presented:

Louis Hopewell Bauer, M.D., Editor of the *Journal of Aviation Medicine*, Hempstead, N.Y., read a paper entitled "Aviation Medicine."

J. Peerman Nesselrod, M.D., Evanston, Illinois, presented the subject, "Rectal and Lower Sigmoid Diseases."

Richard Bartley Cattell, M.D., of Boston, read a paper entitled "Surgical Diseases of the Large Intestine."

James P. Leake, M.D., Medical Director, Federal Security Agency, United States Public Health

Service, National Institute of Health, Bethesda, Maryland, read a paper on "Poliomyelitis."

Ralph Pemberton, M.D., Professor of Medicine, The Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania, Philadelphia, read a paper entitled "Arthritis."

Second General Meeting Thursday, September 25, 1941

The second General Meeting was held in the Assembly Room of the Claypool Hotel, Thursday morning, September 25, 1941. The following scientific program was presented:

William Ditmars Province, M.D., Resident in Medicine, Presbyterian Hospital, New York, read a paper entitled "Chemotherapy."

Charles Mazer, M.D., Assistant Professor of Gynecology, The Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania, Philadelphia, read a paper entitled "Endocrine Treatment in General Practice."

C. D. Selby, M.D., Detroit, read a paper entitled "Industrial Health."

John J. Moorhead, M.D., Professor of Clinical Surgery, New York Post-Graduate Medical School, Columbia University, New York, read a paper entitled "The Essentials in Fracture Treatment."

Fred M. Smith, M.D., Professor of Theory and Practice, State University of Iowa College of Medicine, Iowa City, Iowa, read a paper entitled "The Management of the Patient with Coronary Disease."

SECTION ON MEDICINE

The Section on Medicine met in the Assembly Room of the Claypool Hotel, Wednesday, September 24, 1941, Chairman, Dr. John Warvel, of Indianapolis, presiding. The following scientific program was presented:

Russell L. Haden, M.D., Cleveland, Ohio, read a paper (with presentation of cases) on "The More Common Blood Dyscrasias Seen by the General Practitioner."

The subject, "The Clinical Application of the Newer Laboratory Procedures as Pertains to the Man in General Practice" was presented in panel discussion, Dr. J. O. Ritchey, of Indianapolis, being the chairman. The panel consisted of Drs. Alfred S. Giordano, South Bend; Wemple Dodds, Crawfordsville, and Gordon B. Wilder, Anderson.

Election of officers resulted as follows:

Chairman: James E. McMeel, M.D., South Bend.
Vice-Chairman: Don E. Woods., M.D., Indianapolis.
Secretary: George Willison, M.D., Evansville.

A symposium on "Diabetes" was presented as follows:

M. R. Shafer, M.D., Indianapolis, "The Management of the Juvenile Diabetic."

Roscoe H. Beeson, M.D., Muncie, "The Management of the Adult Diabetic."

B. M. Edlavitch, M.D., Fort Wayne, "The Management of the Senile Diabetic."

Clifford O. Richey, M.D., Evansville, read a paper on "Gaseous Indigestion."

SECTION ON SURGERY

The meeting of the Section on Surgery of the Indiana State Medical Association was held in the Chateau Room of the Claypool Hotel, Wednesday afternoon, September twenty-fourth, 1941, with the chairman, Dr. Joseph H. Clevenger, of Muncie, presiding.

Dr. Hawthorne C. Wallace, of Crawfordsville, read a paper on "Regional Ileitis." Dr. B. D. Rosenak, of Indianapolis, opened the discussion and was followed by Dr. D. F. Cameron, of Fort Wayne.

The second paper was read by Dr. Robert B. Acker, of South Bend, on the subject "After Treatment of Poliomyelitis." This paper was discussed by Dr. J. Neill Garber, M.D., of Indianapolis.

Dr. William Deprez Inlow, of Shelbyville, presented a paper on "Polycystic Disease of the Liver." The discussant for this paper was Dr. Clyde G. Culbertson, of Indianapolis.

Dr. Ernest Rupel, of Indianapolis, read a paper on "Surgical Lesions of the Kidney." Dr. Rupel's paper was discussed by Dr. Theodore R. Hayes, of Muncie.

The guest speaker, Dr. W. Kenneth Jennings, Associate Professor of Surgery, Northwestern University Medical School, Chicago, read a paper on "A New Method of Repair for Inguinal Hernia."

Officers for 1942 were elected as follows:

Chairman: A. H. Duemling, M.D., Fort Wayne.
Vice-Chairman: V. Earle Wiseman, M.D., Greencastle.
Secretary: W. D. Inlow, M.D., Shelbyville.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

The Section on Ophthalmology and Otolaryngology met in the Palm Room of the Claypool Hotel, Wednesday afternoon, September 24th. The meeting was called to order by the chairman, Dr. W. F. Hughes, of Indianapolis.

Dr. John R. Swan, of Indianapolis, read a paper entitled "Complications of Mastoiditis." This was discussed by Dr. E. L. Van Buskirk, of Lafayette.

Dr. Fred McKemy Ruby, of Union City, presented a paper on the subject "The Practice of Ophthalmology," which was discussed by Dr. O. T. Allen, of Terre Haute.

The third paper was presented by Eugene L. Bulson, M.D., of Fort Wayne. His subject was "Cancer of the Larynx." This paper was discussed by Dr. J. Vernal Cassady, of South Bend.

The guest speaker, Sanford R. Gifford, M.D., of the Northwestern University Medical School, Chicago, presented a paper on "Treatment of Secondary Glaucoma."

Officers for 1942 were elected as follows:

Chairman: E. O. Alvis, M.D., Indianapolis.
Vice-Chairman: E. L. Van Buskirk, M.D., Lafayette.
Secretary: Bernard Ravdin, M.D., Evansville.

SECTION ON ANESTHESIA

The Section on Anesthesia of the Indiana State Medical Association convened in Parlor B of the

Claypool Hotel, Wednesday afternoon, September 24th, following a luncheon meeting in honor of Paul M. Wood, M.D., Assistant Clinical Professor of Anesthesia, New York Medical College. Dr. Lillian B. Mueller, of Indianapolis, chairman, presided.

The first paper on the program was read by Dr. Lillian B. Mueller, Indianapolis, on "A Simple Device for Administering Intravenous Barbiturates."

Dr. Paul M. Wood, of New York, the guest speaker, presented the second paper. His subject was "Facts and Fallacies Concerning Modern Anesthesia." Dr. Wood's paper was discussed by E. P. Buckley, M.D., of Jeffersonville.

The third paper was presented by Dr. J. M. Whitehead, of Indianapolis, on the subject "Anesthetic Agents and Anesthetic Failures."

Officers for 1942 were elected as follows:
Chairman: Ernest P. Buckley, M.D., Jeffersonville.
Vice-Chairman: Frank W. Ratcliff, M.D., Lafayette.
Secretary: John M. Whitehead, M.D., Indianapolis.

INDIANA STATE MEDICAL ASSOCIATION

THE EXECUTIVE COMMITTEE

September 16 and 22, 1941.

Note: These minutes will be written up as if the matters were considered in a single meeting. The first meeting was an informal one, called to discuss particularly the medical relief situation with Dr. John Leffel, chairman of the Medical Relief Committee of the Indiana State Medical Association. Those present at the meeting of September 16 were: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; A. M. Mitchell, M.D.; Albert Stump, attorney; J. S. Leffel, M.D., and T. A. Hendricks, executive secretary.

Regular monthly meeting called to order at 6:30 p.m. daylight saving time, September 22, in the Empire Room, Claypool Hotel. The following were present: C. A. Nafe, M.D., chairman; C. H. McCaskey, M.D.; A. M. Mitchell, M.D.; M. A. Austin, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D., and T. A. Hendricks, executive secretary. Guests: K. R. Ruddell, M.D.; R. L. Sensenich, M.D.; N. M. Beatty, M.D., and J. W. Wright, M.D.

Minutes of the meeting of August 10 approved upon the motion of Dr. Mitchell, seconded by Dr. McCaskey.

Membership Report.

Number of members Sept. 22, 1941....3,187 (143 in service) (106 honorary members)
Number of members Sept. 22, 1940....3,163
Gain over last year..... 24
Number of members Dec. 31, 1940....3,192 (90 honorary members)

Treasurer's Office.

Letter received in regard to United States savings bonds to be brought up for action by the treasurer of the association at the next meeting of the committee.

The statements of receipts and expenditures for August for the association committees and THE JOURNAL were approved.

1941 Annual Session at Indianapolis.

Final seating arrangement for banquet approved by committee, including a special table for the ex-presidents and their wives and a special table for secretaries of the various health organizations and newspaper men.

Commercial exhibit. Forty-nine spaces sold to forty-seven exhibitors, and all exhibit accounts paid up.

Legislative, Legal and Social Security Matters.

Local

Several communications in regard to tuberculosis examinations of school employees brought to the attention of the committee and the general situation discussed by the committee.

Organization Matters.

Statement of pharmacists over WLW. The Executive Committee approved in principle the statement to be broadcast over WLW offering the congratulations of the physicians of Indiana to the pharmacists for their splendid public service.

State Board of Health.

Change in wording on venereal disease report cards. The Venereal Disease Committee of the Indiana State Medical Association has met with representatives of the State Board of Health and the laboratory men of the state and recommendations are to be made to the House of Delegates.

Medical Economics.

National Youth Administration. Report confirmed that NYA medical examination work had been dropped entirely in Ohio because of lack of funds.

Physicians selected by United States Employees' Compensation Commission. Letters in regard to such selections received from J. W. Holloway, Jr., acting director of the Bureau of Legal Medicine and Legislation of the American Medical Association. The situation in short is as follows: Physicians desiring to do this work may make their applications to the Commission. At the present time such applicants must be members of the medical society. Several men, however, are on the list who made their applications before this rule was passed.

State Land Use Planning Committees. Letter from Dr. West in regard to the creation of state land use planning committees in many states brought to the attention of the committee. The Kansas Medical Society has made a report pertaining to the proceedings of the Kansas State Land Use Planning Committee and to the activities of the Kansas Medical Society in connection with that committee. The Kansas report is to be studied by Doctors Nafe and Beatty and report

to be made at the next meeting of the Executive Committee.

Medical Relief.

August WPA report brought to the attention of the committee.

Public assistance program. Dr. John Leffel, chairman of the Medical Relief Committee of the Indiana State Medical Association, discussed at length the public assistance rules and regulations in regard to medical services that are being prepared by a committee working under the direction of the Public Welfare Department. The Executive Committee formally approved the viewpoint taken by Dr. Leffel as a member of this committee that insofar as possible this program should be worked out upon a local rather than a state centralization basis. The committee expressed its deep appreciation for the work that Dr. Leffel is doing on this committee and gave him its 100 per cent approval.

The minutes of the meeting of the State Advisory Committee on Medical Care were distributed to the members of the Executive Committee.

Socialized Medicine.

Dr. Leffel was appointed by the committee to discuss the paper entitled "The Administration of Medical Care" by Dr. Nathan Sinai, of the University of Michigan, at the Indiana State Conference on Social Work on Friday morning, October 31.

Military Preparedness.

McNutt suggests rejectees' care. Article from Washington stating that Paul McNutt, Federal Security Administrator, recommends medical treatment be provided at government expense for registrants rejected for army service, brought to the attention of the committee.

The following letter was received from Paul V. McNutt by Dr. Charles Bird, chairman of the M-Day and Veterans' Affairs Committee:

> "Many thanks for your note concerning the action of the South Bend convention. I am glad to know that things went so well.
>
> "The problem of mobilizing the members of the profession has received serious consideration of the American Medical Association and the defense Health and Medical Committee, which happens to be a part of my organization. Only yesterday I consulted with the Secretaries of the War and Navy Departments and brought the matter to the Cabinet meeting. A plan has been drafted which would seem to require legislation. This is being prepared in our office and when approved will be submitted to Congress. I feel that something should be done immediately."

Civilian defense. Emergency Medical Service for Civilian Defense Bulletin No. 1 received by the Executive Committee. Copies of this bulletin and letters are to be sent to the secretary of each county medical society and the chairmen of the county M-Day committees.

Farm Security Administration.

Information received that representatives of the Farm Security Administration are planning to work out an agreement for the care of their clients with the Kosciusko County Medical Society.

Future Medical Meetings.

Annual Secretaries' Conference, American Medical Association, November 14 and 15.

Group Hospitalization and Medical Service Plans.

Material in regard to Ohio's new law brought to the attention of the committee.

Michigan Hospital Service Plan. John R. Mannix, director of Michigan Hospital Service, and William J. Griffin, legal adviser, came to Indianapolis again to promote the immediate formation of a nonprofit hospital service plan in Indiana.

The Journal.

Wabash Valley Sanitarium, Lafayette, advertisement approved for publication in The Journal.

Advertisement of American Red Cross. Approval given for The Journal to carry a full page advertisement for the Red Cross free of charge in the November issue of The Journal.

Additional color in advertisements. The committee was informed that Eli Lilly and Company is interested in using two colors in their advertisement for 1942 and also that S. M. A. and Petrogalar are seriously considering color advertisements. The committee suggested that the cost of such additional color and information in regard to extra charges that should be made for the same be obtained and brought up for its approval at the next meeting. If such could be done with a reasonable profit, the committee approved the addition of color ads.

Medical Defense.

Indiana survey upon medical defense companies to be brought to the attention of the committee at its next meeting.

Copy of the article carried in the American Insurance Digest and Insurance Monitor concerning the Medical Protective Company brought to the attention of the committee.

The following letter from The Aetna Casualty and Surety Company was brought to the attention of the committee:

> "We will greatly appreciate having you go on record with the executive committee of the State Medical Association that we intend to intensify our efforts in the writing of the coverage in caption, (Physicians' and Surgeons' Professional Liability Coverage) and in the near future will have a Company representative contact the secretaries of the various county societies. We not only write broad coverage, but when a risk meets with our underwriting requirements, we are willing to

provide whatever limits of liability the doctor is interested in. The matter of rates and underwriting requirements, as well as the writing of a group policy for the county societies, will be explained in detail to the respective secretaries.

"In the event that the executive committee or any of the county secretaries would like to know more about the coverage, rates, etc., prior to the regular visit by our representative, please feel free to have them get in touch with this office and we will see that they secure full particulars promptly."

There being no further business, the meeting was adjourned.

LOCAL SOCIETY REPORTS

Clay County Medical Society members held a business meeting at the Benwood Farms on October seventh, with nine members present.

* * *

Dekalb County Medical Society members met at the Auburn Hotel, Auburn, for a luncheon and business meeting on September eighteenth.

* * *

Elkhart County Medical Society members held a dinner meeting at Hotel Elkhart, Elkhart, on September eleventh.

* * *

ELEVENTH INDIANA COUNCILOR DISTRICT

The sixty-sixth semi-annual meeting of the Eleventh Indiana Councilor District was held at the Logansport State Hospital, at Logansport, on October 8, 1941. Dr. A. M. Mitchell, president of the Indiana State Medical Association, spoke at the banquet.

* * *

Huntington County Medical Society members held their regular monthly meeting at the Hotel La-Fontaine, Huntington, on October seventh. Dr. Gordon W. Batman, of Indianapolis, spoke on "Treatment of Some of the More Common Fractures."

* * *

Miami County Medical Society members met at the Dukes Miami County Hospital, Peru, on September twenty-sixth for a business meeting. Doctor H. E. Line, of Chili, gave a report on the state medical meeting recently held at Indianapolis. Nine members were present.

* * *

The Randolph County Medical Society members held a dinner meeting at the Beeson Memorial Club House, Winchester, on September tenth. Dr. J. S. Robison, of Winchester, spoke on "Intestinal Obstruction." Eighteen members and guests were present.

Marshall County Medical Society members met at the Hi-way Inn on September tenth for a luncheon and business meeting. Plans for a special postgraduate course in obstetrics were discussed.

* * *

Tippecanoe County Medical Society members held a meeting at the Lafayette County Club on September ninth. Dr. Park G. Smith, of Cincinnati, Ohio, was the speaker of the evening, his subject being "Ureteral Injuries." The state urologists were guests of Drs. Crockett and Eaton at a luncheon and Golf Meet, and also attended the Society dinner and address. Sixty members were present.

* * *

Tippecanoe County Medical Society members held a regular meeting at Lafayette, October 14, 1941, at which the following resolutions were presented, discussed, and adopted:

DISCUSSIONS

(a) The medical profession is not unpatriotic and willingly will make any necessary sacrifice for the United States of America.

(b) There also is a willingness for the doctors to submit to a selective service for the Army or Navy.

(c) There was strenuous objection to any assignment agency in the control of government "for the civilian and industrial needs of the nation."

(d) Our society feels that any procurement agency for medical personnel should be in control of the medical profession with the cooperation of the government rather than in control of government with the cooperation of the profession.

RESOLUTIONS

Whereas, At the Cleveland meeting of the American Medical Association, June 3, 1941, there was presented before the House of Delegates by Dr. Irvin Abell, Chairman of the Committee on Medical Preparedness, a resolution urging the United States Government to plan and arrange a Procurement and Assignment Agency to call from civil medical practice selected physicians for the Army, the Navy, the Public Health Service, and for the Civilian and Industrial needs of the nation; and

Whereas, The Reference Committee returned this resolution to the House of Delegates recommending its adoption; and

Whereas, Private information is abroad that the American Medical Association not only is acquiescing in but is actively assenting to the formation of some such set-up; and

Whereas, The Tippecanoe County Medical Society of Lafayette, Indiana, sincerely believes that the resolution, as written and presented, embodying as it does the element of selecting civilian practicing physicians and assigning them to civilian needs, a procedure which would be inimical to the Public Welfare and contrary to the ideals of the medical profession, as this Society understands them to be; and

Whereas, The Society believes that the inevitable and ultimate aim and objective of such a Procurement and Assignment agency would be to place the entire medical profession completely under federal control and subject all our professional activities to political manipulation; and

Whereas, The Tippecanoe County Medical Society is not unpatriotic, but every member willingly would sacrifice his or her all for the preservation of Our Country and for all it stands; and

Whereas, The Society believes that when, as, and if it becomes necessary to mobilize for defense or for war, one-third of the physicians now under the age of fifty-five years, as is stated in some quarters, such mobilization should and can be carried out by the profession itself, with government cooperation but without the government being in control; therefore be it

Resolved, That the Tippecanoe County Medical Society of Lafayette, Indiana, a component society of the Indiana State Medical Association, vehemently condemns and vigorously protests against the Abell resolution, as written, and the Society respectfully prays that the American Medical Association cease and desist in all activity pertaining thereto unless and until every safeguard is provided to preserve the idealisms of medical practice as this Society understands them to be; and be it further

Resolved, That a copy of these resolutions be sent to the Executive Committee of the Indiana State Medical Association, a copy to Dr. Irvin Abell, a copy to Dr. Olin West, secretary of the American Medical Association, a copy to Dr. Frank H. Lahey, president of the American Medical Association, a copy to each County Medical Society in the state of Indiana, and a copy be retained in the files of the Society.

WOMAN'S AUXILIARY INDIANA STATE MEDICAL ASSOCIATION

State Officers, 1941-1942

President—Mrs. Ernest O. Nay, Terre Haute.
President-elect—Mrs. Arnold Duemling, Fort Wayne.
1st Vice-President—Mrs. Frank C. Walker, Indianapolis.
2nd Vice-President—Mrs. John P. Gentile, New Albany.
3rd Vice-President—Mrs. F. M. Fargher, Michigan City.
4th Vice-President—Mrs. W. C. Anderson, Terre Haute.
Recording Secretary—Mrs. William Wright, Fort Wayne.
Treasurer—Mrs. T. R. Hayes, Muncie.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Councilor—Mrs. C. L. Bock, Indianapolis.
Parliamentarian—Mrs. Chas. F. Voyles, Indianapolis.
Historian—Mrs. U. G. Poland, Muncie.

Committee Chairmen:

Archives—Mrs. E. M. Shanklin, Hammond.
Exhibits—Mrs. F. S. Cuthbert, Kokomo.
Hygeia—Mrs. James W. Baxter, Jr., New Albany.
Legislation—Mrs. M. B. Van Cleave, Terre Haute.
Organization—Mrs. F. B. Wishard, Pendleton.
Program—Mrs. E. N. Mendenhall, Fort Wayne.
Press and Publicity—Mrs. Emmett B. Lamb, Indianapolis, co-chairman; Mrs. Wm. N. Wishard, Jr., Indianapolis, co-chairman; Mrs. Harold C. Ochsner, Indianapolis, and Mrs. Arthur Richter, Indianapolis.
Public Relations—Mrs. George Bowman, Indianapolis.
Pioneer Memorial—Mrs. O. G. Pfaff, Indianapolis.
Bulletin Circulation Manager—Mrs. W. E. Tinney, Indianapolis.
Budget—Mrs. Frank Gastineau, Indianapolis.

One of the interesting features of the thirteenth annual convention of the Woman's Auxiliary to the Indiana State Medical Association held on September 23, 24, and 25, in Indianapolis, was the Hobby Fair of the physicians' families. It illustrated that the doctor really believes that "all work and no play makes Jack a dull boy." The most unusual entry was the exhibit of fancy chickens which came from Fort Wayne. Other entries were exquisite examples of needlepoint, knitting and woodcarving, an antique button display, crocheted afghans, salt and pepper shakers, ducks and geese (china), exhibits of photography, oil paintings, antique glass and dishes, a dress model, flower arrangements, fruit, old books and old instruments, and most colorful of all was a collection of baskets, silver, hand-hammered leather pieces and rugs from Mexico.

Those responsible for the execution of all the duties concerning this Hobby Fair and the three days' program as a whole were Mrs. Karl Koons, president of the Marion County Auxiliary, and her committee, which included: Mrs. J. E. Holman, Mrs. A. M. Hetherington, Mrs. George Lawler, Mrs. Carl McCaskey, Mrs. B. D. Rosenak, Mrs. Wm. F. Hughes, Mrs. Fred Gifford, Mrs. Geo. Bowman, Mrs. John Carmack, Mrs. Edmund Clark, Mrs. Wm. Clevenger, Mrs. Harry Foreman, Mrs. D. O. Kearby, Mrs. Ross Ottinger, Mrs. Wm. Tinney, Mrs. David Ross, Mrs. Harry VanOsdol, Mrs. Louis Belden, Mrs. Homer Hamer, Mrs. Rollin Moser, Mrs. Kenneth Kohlstaedt, Mrs. C. H. Jinks, Mrs. W. D. Little, Mrs. James McBride, Mrs. Charles Thompson, Mrs. Irwin Wilkins, Mrs. Frank Gastineau, Mrs. Harold Ochsner, Mrs. Wm. Wishard, Jr., Mrs. Paul Beard, Mrs. H. S. Leonard, Mrs. J. W. Ricketts, Mrs. Gerald Gustafson, Mrs. Morris Paynter, Mrs. Charles F. Voyles, Mrs. Walter Morton, Mrs. T. Victor Keene, Mrs. Emmett B. Lamb, Mrs. Robert Moore, and Mrs. C. L. Bock.

Activities began on Tuesday afternoon with a tour of the Riley Hospital, after which a reception and tea for state officers was held. In the evening the women enjoyed a dinner and style show at the Columbia Club while the men were attending their annual "smoker." We were very fortunate in having with us for the convention our most capable and energetic national president, Mrs. R. E. Mosiman, of Seattle, Washington. After the dinner she gave a short address emphasizing that "as an auxiliary organization to medical associations our

greatest contribution during this time of war-relief should be made in the field of health education. In this field the attention of the nation is being focused upon nutrition for defense. First of all, nutrition for defense means defense against poor health. . . . The draft has shown that some forty per cent of our young men are physically unfit for military service, many of their physical defects being thought to be due to improper diets. . . . Second, is defense against high prices. . . . We are going to need adequate diets at low cost in order to carry out the program for national defense in proportions necessary to maintain our security during the critical times ahead of us. It is going to be necessary to know how to buy and what to buy. . . . The third, and perhaps the most important point in the program on nutrition for defense, is defense against propaganda. The subject of nutrition has been and is being made the basis of propaganda emanating from many sources. We must be careful in what we believe—who said so? Where is the evidence? *Hygeia*, the health magazine, is an excellent source of material and is the finest weapon available for this war. The last war failed to give the public proper knowledge on health."

Proof that this organization is not merely a social group but that it really accomplishes important things was evidenced by the large attendance at the breakfast and business meeting held early Wednesday morning in Ayres Tea Room. The business meeting, held immediately following, in the auditorium, was called to order by Mrs. C. L. Bock, president of the Woman's Auxiliary to the Indiana State Medical Association. Mrs. Karl Koons gave the address of welcome, with Mrs. Wm. E. Tinney responding. Mrs. E. N. Mendenhall, of Fort Wayne, had charge of the impressive memorial services. Using a white cross as the background, a candle was lighted as each name was read. Those so honored were Mrs. John C. Carney, Delphi; Mrs. R. W. Kraft, Lake County; Mrs. T. W. Oberlin, Lake County; Mrs. J. D. Miller, Indianapolis; Mrs. Earl S. Green, Muncie, and Mrs. W. A. Spurgeon, Muncie.

Fifty-one delegates responded to the roll call. A representative of each county gave a two-minute report on what her group had accomplished this year. Mrs. Mosiman gave another short talk complimenting us on our activities, especially public relations, organization, and *Hygeia*. She drew our attention to a special article in the post-convention issue of the *Bulletin* about the "Practical Workings of Politics." It gave information concerning "what every doctor's wife should know about the political machine and legislation."

The principal speaker, Mrs. Lester A. Smith, one of our own members and president of the Indianapolis League of Women Voters, explained just what that organization is doing in studying Public Health and Health Insurance. As this subject was suggested by our state advisers as one of our chief interests this year, it was a very timely address. She outlined the structure of the organization. It was formed in 1919 just before franchise to women in the United States was granted. She gave the following talk:

"We need to be informed in order to be intelligent citizens and voters, so the purpose of the organization was to train newly-franchised women in their voting. In many communities there were first citizenship schools to teach the mechanics of voting. Later the program became much broader. The League is a nonpartisan organization promoting responsible participation of women in government. The structure is made up of local, state, and national groups. Each woman is a member of all three organizations. There are elected officials. In order to carry forward studies, five groups have been established: government and its operation, government and education, government and economic welfare, government and social welfare, and government and foreign policy. Government is the dominating idea in the whole program.

"The Medical Association is concerned with the fact that the National League of Women Voters has proposed to study 'Health Insurance and Federal Responsibility for Public Health.' The League is interested in problems related directly to the welfare of women and children; interested in child labor, school attendance, problems of women in industry, housing, and problems of relief administration. One cannot go very far along any of these lines without coming face to face with the problems of health. It becomes a part of them. Some people consider this to be a side issue, but the League of Women Voters does not—it is concerned with provision of adequate care for all people. Serious study is necessary before supporting any program. There is confusion in the minds of the public and the medical profession itself as to the manner in which these problems should be solved.

"It becomes necessary for the person who wishes to understand the problems of medical care for all classes to spend a great deal of thought in order to reach a sound conclusion. The League began a search of available literature which might be particularly informative to League members. The result is a collection called a 'kit.' In it there are official publications on United States welfare activities, Senate reports, hearings on the Wagner Act, reports from the National Council of Jewish Women, plans for Hospital Insurance, etc. There is a comprehensive study-outline, with directions and questions for the leader. There are plans for seven meetings, four of which are factual, and nothing is controversial. At this time a study is made of death rates in communities, as to the proportion preventable, per cent which obtained medical care, etc. The idea is to get a picture of the circumstances in that particular local community: What does the league study-group con-

sider to be adequate medical care? What is the Federal Government doing about public health problems, federal aid, and public health service? Two visits are made to tax-supported hospitals and public health clinics. The last three meetings are devoted to evaluation of the various proposals made in study-groups, such as proposals for more generous distribution of medical services and other proposals, and their evaluation. The leader is instructed to be certain that all sides are presented fairly.

"The League is not alone in its interest for adequate medical care. Among other groups are the National Council of Jewish Women, the Farm Bureau Federation, and the General Federation of Women's Clubs. Both labor organizations have endorsed health insurance, and the general public is very much interested therein. From January, 1941, to June, 1941, the cumulative index of periodical literature lists twenty-seven articles pertaining to medical services.

"The A.M.A. in its official publication recognized Public Health—care of general public health as a concern of the government. It recognizes that the indigent are a financial responsibility of the entire community. It recognizes the necessity for a continuance of institutional care for mental, tubercular, and other types of cases requiring such care. It recognizes the need for workman's compensation laws. However, it opposes socialized medicine. What does this mean? It means provision for medical care for all persons in the community at the expense of the taxpayer and the physician as an employee of the government, either national, state, or local.

"Provision must be made for two groups, the entirely indigent, and the medically indigent (those able to provide necessities, but not able to provide medical care for themselves). Forty million people fall into one of these groups. The A.M.A. has felt the responsibility for informing its own members and the public on this question and has published numerous pamphlets. It encourages various experiments in different areas for provision of organized payments for medical care by state or county medical associations.

"The Auxiliary to the Indiana State Medical Association is interested in the question from the standpoint of the physician supplying medical care to the population. Interest cannot be limited to this problem only, for we are interested in the community as well. We have to develop interest in government as a whole in order to understand our own problem.

"The League is made up of women representing many social and economic interests. It offers training in citizenship and directs all its efforts to *public interest only.*"

Following this most instructive talk, Mrs. U. G. Poland, Muncie, our historian, spoke briefly expressing the hope that each organization is work-

(Continued on page XXIV)

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

A DOCTOR SAYS:

"Unless one has gone through the experience of a suit, or threatened suit he is not likely to appreciate the great comfort it is to have professional protection. Our policy with you certainly gave us many a good night's sleep and kept us from many a headache."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

Cook County Graduate School of Medicine

(In affiliation with COOK COUNTY HOSPITAL)
Incorporated not for profit.
ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course in Surgical Technique with practice on living tissue, starting every two weeks. General Courses One, Two, Three and Six Months; Clinical Courses; Special Courses. Rectal Surgery every week.

MEDICINE—Two weeks Intensive Course in Internal Medicine, and Two Weeks Course in Gastro-Enterology will be offered twice during the year 1942, dates to be announced. One Month Course in Electrocardiography and Heart Disease every month, except December.

FRACTURES AND TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered four times during the year 1942, dates to be announced. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered four times during the year 1942, dates to be announced. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered twice during the year 1942, dates to be announced. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered twice during the year 1942, dates to be announced. Clinical and Special Courses starting every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered twice during the year 1942, dates to be announced. Informal Course every week.

ROENTGENOLOGY—Courses in X-ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY AND THE SPECIALTIES
TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore St., Chicago, Ill.

ing for things and not just passing the time away. "If you have nothing to do, knit." She stated that "prejudice is being down on what we are not up on."

Mrs. George Dillinger, of French Lick, gave a report on the National Convention, closing her remarks with the last paragraph of Mrs. Mosiman's inaugural address as follows: "As has been said, the work accomplished through our various departments is vital to the health needs of our country under all conditions. Such work properly coordinated can be expanded to meet the special needs of health defense in time of war. If promoted efficiently and conscientiously, it can result in a contribution to national defense worthy of the ideals of the Woman's Auxiliary. To this end let us pledge our unified effort, accomplishing our purposes in the spirit of service to humanity, as do the members of the great humanitarian profession with which we have the privilege of association."

The highlight of our business meeting was the submission of the state project by the committee consisting of Mrs. Ernest O. Nay, Mrs. Fred B. Wishard, and Mrs. Tinney. The recommendation was as follows: "Each county independently to recognize Doctor's Day, which is March thirtieth, by publicly honoring a pioneer doctor of their county in whatever way is deemed advisable. Also by compiling a history of the life of the doctor so honored, to be kept in the Archives of the State Auxiliary or turned over to the State Medical Association as may later be decided." It has long been felt that there was a definite need for one specific project to be shared by all counties in the state. In so doing we hope there will be a continuation of the unity for which we are striving.

Several very interesting tours were made in the afternoon—to the James Whitcomb Riley's Home, the Day Nursery, the Benjamin Harrison Home, and the Roberts' School for Crippled Children. The annual banquet at the Scottish Rite Cathedral was attended by the women as well as the men.

We feel that much valuable information was taken back from this convention, as a result of the enthusiasm and energy of all concerned. The exhibits sent by Fort Wayne and Vigo counties should serve as an inspiration to other counties for our next year's convention.

The Past President's Club had its first annual meeting at which time Mrs. M. A. Austin, Anderson, was elected president; Mrs. M. B. Vancleave, Terre Haute, first vice-president, and Mrs. C. L. Bock, Indianapolis, secretary.

ABSTRACTS

DEATHS FROM DISEASE SHOULD BE FEWER IN 1941 ARMY THAN IN 1918

Unless some new cause of death occurs to weight the index unfavorably, the new Army should have a far lower death rate record from disease than did the Army of twenty years ago, O. H. Perry Pepper, M. D., Philadelphia, chairman of the Committee on Medicine of the National Research Council, declares in the July-August issue of *War Medicine*, published bimonthly by the American Medical Association, Chicago, in cooperation with the Division of Medical Sciences of the National Research Council.

"To obtain these improved results," he says, "a proper appreciation of the role of general medicine in the Army is essential. Officer personnel skilled in general medicine and diagnostic and therapeutic facilities equal to the best in civil practice are required to guarantee the results which can and should be obtained."

Dr. Pepper's prediction is predicated on a study of the statistics of diseases in the American Army during the last world war and an analysis of present day knowledge of how to more effectively prevent, diagnose and treat these diseases. Of particular significance is his warning that the danger "is that the expectancy of general medical disease in the Army and the heavy obligation of the medical officers in this field will be lost sight of as a result of the tremendous emphasis placed on certain limited parts of the problem. Surgery, for example, becomes of predominate importance only when battle casualties occur."

Dr. Pepper says that the mean annual strength of officers and enlisted personnel in the United States and Alaska during the period from April 1, 1917 to Dec. 31, 1919, was 2,235,389 men, which is a number reasonably comparable to the total strength now being approached by the Army. The statistics do not include any data on the American Expeditionary Force nor on troops in tropical areas, such as in the new Caribbean bases.

"One is therefore dealing with two equally large groups of selected, supposedly healthy young men mobilized within the United States," he says. "The earlier experience should be instructive."

"In the thirty-three months from April 1, 1917 to Dec. 31, 1919, there occurred in the Army admissions to the hospital for some thirty varieties of infectious disease exclusive of tuberculosis and venereal diseases. There were also admissions for some twenty-five other 'general diseases'; for more than twenty-five varieties of circulatory disease; for ten disorders of the respiratory system, and for twenty-five disturbances of the digestive system. Furthermore, there were some twenty disorders of the nervous system. . . ."

Discussing some of the more important, or frequently occurring, medical diseases of the Army twenty-four years ago and the factors, if any, which may change the incidence or severity of these diseases in the months to come, Dr. Pepper says that among the infectious diseases "it is permissible to anticipate an improvement in the figures for typhoid fever . . . although it is too much to hope that typhoid fever will not occur. Ideally this goal might be achieved were there no slip up in prophylactic vaccination and no failure in resulting immunity. Much the same reasoning applies to smallpox . . . although there is less excuse for even a single case. . . . Tetanus can also be eliminated from the new Army. . . .

"Little can be done to prevent measles and mumps. Already these are running high in the hospital admissions of the new Army. Similarly, influenza may reappear, but, it may be hoped, not to the same extent and not with the same serious complications. Meningococcic meningitis may perhaps be kept to a lower level by more prompt diagnosis and more successful treatment of patients and carriers with sulfanilamide and its derivatives; certainly death from the disease should be less frequent. . . ."

Beriberi and pellagra, included in the list of infections twenty years ago, will not reappear there today. They are vitamin deficiency diseases and, Dr. Perry Pepper explains, "they will be found under another heading, if at all, for science does advance! Tuberculosis of the lungs, it is to be hoped, will be greatly reduced as a result of more careful preservice examinations with roentgen control. One wishes that one could be equally hopeful about 'acute articular rheumatism,' but unfor-

(Continued on page XXVI)

For the local Treatment of Acute Anterior **Urethritis**
(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE*
Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae.[1] An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., **23**, 201 (March), 1939.

A complete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

"This is the way to feel refreshed"

Pause at the familiar red cooler for ice-cold Coca-Cola. Its life, sparkle and delicious taste will give you the real meaning of *refreshment.*

(Continued from page XXIV)

tunately there is little basis for such optimism. Two small epidemics have already occurred."

Under general diseases he says that the incidence of rickets should be reduced and that cancer and other malignant tumors will require prompt and thorough treatment if anything is to be accomplished. He says there is no assurance that the incidence of arthritis will be reduced. It is surely justifiable to believe, he says, that few, if any, of the disorders due to lack of sufficient vitamins will occur in the new, well fed Army.

Dr. Pepper says there is reason to hope for material improvement in the incidence of diseases of the circulatory system but it is feared that the present Army will show a far higher incidence of high blood pressure than was found in the last world war.

Although sulfanilamide and its derivatives will favorably influence the death rate from pneumonia, there may be no improvement in the incidence of this condition unless it is found that the preventive use of these drugs for influenza and measles is justified, he says in analyzing the discases of the respiratory system. The incidence of asthma may be expected to be the same. . . .

Discussing diseases of the digestive system, Dr. Pepper says there is little reason to believe that there will be any lessening in the frequency of peptic ulcer; in fact, there is likely to be an increase if rumors concerning the frequency of this disorder in the armed forces of other nations can be believed. Appendicitis may be less frequent and also hernia. A lower incidence of intestinal infestations may be expected.

"In the group of 2,235,389 enlisted men and officers in the Army in the United States (including Alaska) during the thirty-three months from April 1, 1917 to December 31, 1919, there occurred from disease (exclusive of injuries, etc.) 34,858 deaths, or 15.59 deaths per thousand," Dr. Pepper states.

The chief causes of these deaths rank as follows: Influenza, lobar pneumonia, bronchopneumonia, measles, tuberculosis and meningococcic meningitis. These six diseases caused about 88 per cent of the deaths. Their toll in the new Army should be materially reduced.

SAYS FEDERAL AGENCY TO SELECT DEFENSE DOCTORS BADLY NEEDED

In the interests of national defense, the establishment at the earliest possible moment of a Federal agency for the procurement and assignment of physicians for military, civilian and industrial service is urged in an editorial in the July-August issue of *War Medicine*, published bimonthly by the American Medical Association, Chicago, in cooperation with the Division of Medical Sciences of the National Research Council, Washington, D. C. The editorial says:

"At the Annual Session of the American Medical Association held in Cleveland in June 1941, the Committee on Medical Preparedness brought to the House of Delegates a resolution urging the establishment of a central agency, to be known as the Procurement and Assignment Agency, which would enable the government to select more promptly and more wisely those physicians necessary for military, civilian and industrial service. The text of this resolution is as follows:

"WHEREAS, The President of the United States has declared that we are in a state of unlimited national emergency, and the Surgeon General of the United States Army requested the American Medical Association in June 1940 at the Annual Session to aid in the procurement of the necessary personnel for an army of 1,500,000 men; and

"WHEREAS, The American Medical Association established a Committee on Medical Preparedness, which has now on hand the records of approximately 150,000 physicians as well as a statement as to their training, experience and specialization; and

"WHEREAS, The sudden entrance of the United States into a war might immediately require the services not only of the physicians already called to duty but of a very considerable additional number; and

"WHEREAS, Neither the American Medical Association nor any other civilian agency has the responsibility or the authority for the selection of those physicians who would be necessary for immediate duty and who would be called from civilian practice into service with the military agencies; therefore be it

"*Resolved*, That the United States government be urged to plan and arrange immediately for the establishment of a central authority, with representatives of the civilian medical profession, to be known as the Procurement and Assignment Agency for physicians for the Army, Navy and Public Health Service and for the civilian and industrial needs of the nation.

"This recommendation is made to avoid or minimize confusion and the inevitable delay which would result from the lack of such an arrangement. It is further recommended by the Committee on Medical Preparedness that if this resolution is approved by the House of Delegates a copy of it be sent to the President of the United States, the Secretary of War, the Secretary of the Navy, the Chairman of the Senate and the House Committee on Military Affairs, the Administrator of the Federal Security Agency, the Surgeons General of the Army, the Navy and the Public Health Service, the Adjutant General of the Army and the Health and Medical Committee.

"Subsequently this resolution was endorsed by the Health and Medical Committee, which has been assigned to the Coordinator for Health Welfare and Related Activities.

"In all the warring nations the problem of medical personnel is prominent. Articles in British medical journals frequently reflect the difficulty of maintaining in Great Britain the social medical system, which includes the physicians who carry on the panel practice, of supplying industries with the innumerable physicians required under present regulations and of giving medical attention to the Army, the Navy, the Royal Air Force and the civilian defense groups. A note from Germany indicates that because of the depletion of the medical profession by emigration and the needs of the military services there are now some areas in which there is available only 1 physician to every 4,500 people.

"Already it is apparent that the procurement and assignment of physicians in the United States for some of the innumerable calls which are likely to be made on them in the near future are going to be a task that will take the best available information and organizational ability. Apparently the needs for medical personnel which must be supplied are about as follows:

1. The United States Army Medical Corps and the United States Army Medical Reserve Corps
2. The United States Navy Medical Corps and the United States Navy Medical Reserve Corps
3. Physicians for the United States Public Health Service

(Continued on page XXVII)

ZEMMER

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled.

Write for general price list.

THE ZEMMER COMPANY

IN 11-41

Chemists to the Medical Profession *Oakland Station, Pittsburgh, Pa.*

4. Physicians for the Selective Service Administration, including local boards and appeal boards
5. Physicians for civilian medical service.
6. Physicians for aid to Britain, requested by the American Red Cross
7. Physicians for industrial medicine
8. Physicians for service in rehabilitation
9. Physicians for civilian defense organization
10. Physicians for state and county medical and public health organizations.
11. Physicians for medical divisions in other government services.

"Already the American Medical Association has available on a punch card system the names of more than 160,000 American physicians licensed to practice, with complete information regarding their ability and availability for many different types of medical service. Nevertheless, the utilization of this material must await the establishment of some agency capable of acting with authority for purposes of procurement and assignment of physicians in times of emergency.

"After the session of the House of Delegates of the American Medical Association the resolution here quoted was sent to the various persons and the committee who are mentioned in the final paragraph. If such an agency is to be of the greatest possible service, it should be organized and ready to function before the moment when it is most needed. It would be well if the national administration could give prompt consideration to the desirability of establishing an agency of this kind at the earliest possible moment."

BOOKS

RECEIVED

ESSENTIALS OF GENERAL SURGERY. By Wallace P. Ritchie, M.D., Clinical Assistant Professor, Department of Surgery, University of Minnesota Medical School. 813 pages with 237 illustrations. Cloth. Price $8.50. The C. V. Mosby Company, St. Louis, 1941.

REVIEWED

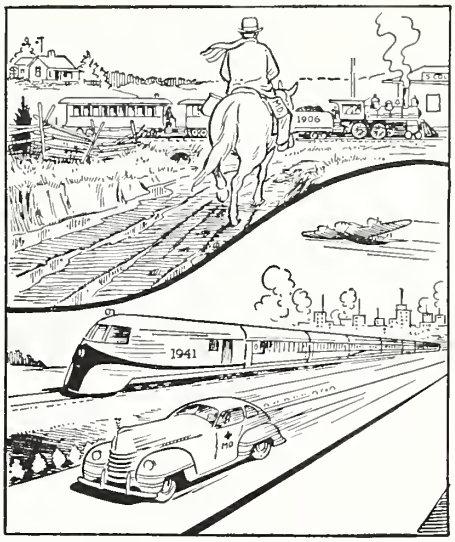
HEALTH AND LONGEVITY. by Charles M. Baird, of Indianapolis. A concise book in which the author presents his ideas on Mental and Physical Hygiene, Food, the Process of Digestion, Unoxidizables, Chemical Elements in Every Kind of Food, and Diseases and Bodily Impairments. This book was written with a view of showing the reader the way to a long life of health and happiness. 157 pages. Cloth. Price $1.75. Christopher Publishing House, Boston, 1941.

* * * *

MILK SICKNESS CAUSED BY WHITE SNAKEROOT. By Edwin Lincoln Moseley, Professor Emeritus of Biology, State University, Bowling Green, Ohio. 171 pages with 3 illustrations. Paper binding. Price $1.00. Published jointly by the Ohio Academy of Science and the author, Bowling Green, Ohio, 1941.

Milk sickness, or trembles, was a well-known disease for at least one hundred years in Illinois, Indiana, Ohio, and the states bordering on the south. The mother of Abraham Lincoln was among its victims. Although it afflicted human beings, domestic animals and wild animals, the cause was unknown for a long time, and many fantastic and utterly mistaken theories were cogitated.

It must have been a well-known disease in the regions where it was prevalent, for large numbers of people as well as domestic animals died thereof. Combined with fear and superstition, the ill-begotten and deformed sister of ignorance, the people were struck by this terrify-



IN STEP WITH PROGRESS FOR THIRTY-FIVE YEARS

SINCE the Southern Medical Association was founded back in 1906, thirty-five years ago, there has been no deviation from that one objective laid down by the founders, the objective which distinguishes the Southern Medical Association from other professional groups—the exclusive purpose to develop and foster scientific medicine and surgery in the South.

SUCH a singleness of purpose and devotion to an ideal accounts largely for a history of unusually successful annual meetings, each better than the last. Logically, the past is a basis for predicting another top meeting at **St. Louis, November 10-13.**

REGARDLESS of any physician's medical interest, there will be much to challenge this interest at St. Louis. Eleven general clinical sessions, nineteen sections, three independent organizations meeting conjointly, and outstanding scientific and technical exhibits, will be available—**still in step with progress.**

ALL white members of the Indiana State Medical Association are cordially invited to be the guests of the Southern Medical Association at the meeting in St. Louis. Attending guests will be accorded every privilege, scientific and social, that members enjoy with the exception of voting in the general session. NO registration fee. To secure a program for the St. Louis Meeting, write to

SOUTHERN MEDICAL ASSOCIATION
Empire Building
BIRMINGHAM, ALABAMA

LABORATORY APPARATUS

Coors Porcelain Pyrex Glassware
R. & B. Calibrated Ware
Chemical Thermometers
Hydrometers Sphygmomanometers

J. T. Baker & Co.'s C.P. Chemicals

Stains and Reagents
Standard Solutions

• BIOLOGICALS •

Serums Bacterins Media
Antitoxins Vaccines Pollens

We are completely equipped, and solicit your inquiry for these lines as well as for Pharmaceuticals, Chemicals and Supplies, Surgical Instruments and Dressings.

The RUPP & BOWMAN CO.
319 SUPERIOR ST., TOLEDO, OHIO

THERE IS A DIFFERENCE
IN Rx SERVICE

You can depend on
Blue Ribbon Rx Service

THE WHITE-HAINES OPTICAL CO.
INDIANAPOLIS and SOUTH BEND

ing pestilence which seemed to embody the wrath of the Almighty.

At least three-fourths of a century had passed before the cause could be traced to the eating of the weed known as white snakeroot, or its more euphonious botanical name *Eupatorium urticaefolium*. The definition of milk sickness was a decided misnomer, for it had nothing to do with drinking of presumably contaminated milk.

The etiologic agent appears to be some kind of resinous substance, probably not either all alkaloid or all glucoside as is the case with so many toxic plants.

Clinically, the condition was an acute toxemia which caused shock and collapse. Postmortem examinations showed marked degenerative changes in the parenchymatous organs, especially in the kidneys. Treatment was aimed at supportive and symptomatic measures. Incidentally, the many and quaint measures used in the older days are worth reading about because of their historical interest.

The book is printed in a typewritten form, and is easy to read. The style tends to be rambling, anecdotal, chatty, and commentary. The many quotations from the old-timers who knew of this disease are well worth reading. It is said that there are about two hundred references on this disease. The reviewer admits that prior to reading this book he did not know there was such a disease; he knows better now.

H.B.

ANSWERS TO THE QUESTIONS ON MEDICAL HISTORY FOUND ON PAGE 623.

1. The gift to the world of ether anesthesia, October 16, 1846. If you have forgotten the story of its discovery and controversy, go to your history and read it again.
2. An account of the trial of John F. Webster for the murder of Dr. George Parkman in 1849.
3. William Beaumont.
4. A controversial question—is the answer Sir William Osler, S. Weir Mitchell, Oliver Wendell Holmes?
5. Daniel Drake.
6. The "Ague?" Smallpox? Cholera? Milksickness? Take your choice.
7. John Stough Bobbs.
8. John Evans, M.D. (1814-1897), who was largely responsible for the first hospital for the insane in Indiana; was chief promoter of Northwestern University and selected its site, which was named Evanston in his honor; was elected Governor of Colorado territory in 1862, and was elected United States Senator from Colorado in 1865. Mount Evans was named after him. Dr. Evans began the practice of medicine in Attica about 1840 and moved to Indianapolis a few years later.
9. Credit for its growth can be given to John Shaw Billings, a native of Indiana, who gave to the world the great Index Catalogue of the library.
10. Dr. John N. Hurty says Dr. Thurman B. Rice. If you don't agree, mention the fact to Dr. Rice and see what happens.

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

OFFICE OF PUBLICATION: 1021 Hume Mansur Bldg., INDIANAPOLIS, INDIANA

VOLUME 34 DECEMBER, 1941 NUMBER 12

THE SULFONAMIDE COMPOUNDS — THEIR USES AND PRINCIPLES OF THERAPY

WILLIAM D. PROVINCE, M.D.*

NEW YORK CITY

Since 1936, when Domagk introduced sulfanilamide, a tremendous amount of literature has accumulated on the sulfonamides; much of it is confusing and contradictory. The purpose of this paper is to discuss some of the simple established facts that have led the chemotherapy group at our hospital to evolve a few fundamental principles which guide them in the treatment of infections with the sulfonamides.

Mode of action. There are many theories of the mode of action of these drugs, and as yet they are not well understood. But from a practical point of view two facts are clear: (1) These drugs are bacteriostatic and not directly bactericidal. They inhibit the growth of the invading organisms, but the final destruction of the invader depends on the other defense mechanisms of the body. (2) The breakdown products of tissue destruction and pus inhibit this bacteriostatic action. It has been observed that these drugs have their greatest usefulness in infections which are superficial, with a maximum degree of invasiveness and a minimum degree of tissue destruction and necrosis.[1] This is true of such diseases as pneumonia, erysipelas, cellulitis, etc. It is a fundamental rule of chemotherapy to drain surgically if necessary, any pus present in an infection in order to allow the drug to act without inhibition.

There are five accepted sulfonamide derivatives which have bacteriostatic action against certain bacteria—sulfanilamide, sulfapyridine, sulfathiazole, sulfadiazine, and sulfaguanidine. The prontosil members of this family may be dismissed by stating that they owe their activity to their ability to break down into sulfanilamide. They are inactive in vitro, and active only in vivo. It has never been shown that they are active in any manner except in their ability to split off sulfanilamide. They are reputed to be less toxic, but this is due to the fact that weight for weight they are about one-half to one-third the strength of sulfanilamide.[2]

Sulfanilamide, the first of the series, was considered to be effective against the hemolytic streptococcus, the colon bacillus, the gonococcus and the meningococcus. In general, each of the next three compounds has been effective against this same group of bacteria, plus one additional organism; sulfapyridine in the case of the pneumococcus, sulfathiazole in the case of the Staphylococcus, and sulfadiazine in the case of B. Friedlander. The fifth drug, sulfaguanidine, is said to act against certain of the dysentery organisms, but is not effective against the preceding group of organisms.

Pharmacology. The sulfonamides are easily absorbed from the gastro-intestinal tract, with 60-70% of the ingested drug being excreted in the urine, both in the free and acetylated form.

Sulfanilamide is distributed more quickly and uniformly to the various body tissues and fluids than the other drugs. It has been shown that the peak of blood concentration after a single dose occurs in about three hours, and that the level begins to fall off within six hours. A portion is acetylated to the inactive but soluble form and excreted through the urinary tract.

Sulfapyridine is more slowly absorbed and excreted than sulfanilamide. It, too, forms an inactive acetyl compound which is excreted via the urinary tract, but, unlike sulfanilamide, this is relatively insoluble. Sulfathiazole resembles sulfanilamide in being readily absorbed and excreted,

* From the Presbyterian Hospital, New York City and the Department of Medicine, College of Physicians and Surgeons, Columbia University. Work done under the supervision of Drs. A. R. Dochez and Yale Kneeland, Jr., and with the assistance of Dr. Frederick K. Heath.

[1] Lockwood, John S.; Coburn, Alvin F., and Stockinger, Herbert E.: Studies on the Mechanism of the Action of Sulfanilamide, *J.A.M.A.* Vol. **111**, pp. 2259-2264, (Dec. 17) 1938.

[2] Brown, W. Hurst: The Use of the Newer Drugs, *The Canadian Medical Association Journal* **44**, 485-495, 1941.

and like sulfapyridine forms an insoluble acetyl compound. Sulfadiazine is slowly absorbed and slowly excreted, but well-distributed throughout the tissues and body fluids. For this reason the maintenance of an adequate blood level is simple. Only a small portion is acetylated. The major portion of these drugs is excreted through the urinary tract. Sulfaguanidine differs in that a much smaller percentage of this drug is absorbed systemically, and a greater amount remains to be excreted through the gastro-intestinal tract. However, the drug that is absorbed is acetylated in greater quantity than with the other derivatives.

Dosage. The blood concentration of these drugs has been found to be an effective and accurate method of determining dosage. In general, sulfanilamide, sulfapyridine and sulfathiazole are given at four-hour intervals throughout the twenty-four hours, and in this way an even blood level can be maintained. It has been found that usually a blood concentration of 5-8 mg.% of the free drug is an effective level for most systemic infections. If there is a bacteremia, a slightly higher level is probably desirable. There is great individual variation in the manner of absorption and excretion of these drugs, and we have seen adult patients who require only 3 gms. (45 gr.) of sulfathiazole each twenty-four hours to maintain a level of 5 mg.%, whereas other persons excrete the drug so rapidly that 12-20 gms. (180-300 gr.) a day are necessary to maintain the same level.

Any dosage schedule drawn up should be only a working basis, subject to individual variations as indicated by the blood level and the therapeutic response. The following has been found satisfactory for general usage: Adults to whom sulfanilamide, sulfapyridine, or sulfathiazole is to be administered receive as an initial dose 2-4 gms. (30-60 gr.), usually 2 gms. (30 gr.), followed by 1 gm. (15 gr.) every four hours; for sulfadiazine 2-4 gms. (30-60 gr.) are given in the initial dose, followed for the first 24 hours by 1 gm. (15 gr.) every four hours, and 1 gm. (15 gr.) every six hours thereafter.

Duration of therapy. It is difficult to standardize the duration of therapy in any disease, especially in acute infections which vary in severity. We have had a working rule for most acute infections that if therapy is worth giving at all, it is worth a five-day trial. If a response has been obtained we do not discontinue therapy until the temperature has been approximately normal for seventy-two hours after which the drug is abruptly stopped. Exceptions to this rule are made in bone infections and meningitis caused by pneumococcus or hemolytic streptococcus. In most meningitides we give full dosage for two weeks, and then a lower maintenance dosage for a month or two. Most chronic infections probably need ten to fourteen days of therapy. The present ideas on duration of therapy are based upon clinical impressions, and as such are subject to future revision.

Infants and children tolerate and require larger quantities of the drugs per unit of body weight. It has been satisfactory to give 0/2 gms. (3 gr.) per kilogram of body weight (1 gr. per lb.) per twenty-four hours. One-fourth to one half of the total dose may be given as an initial dose and the remainder given in divided doses every four hours.

Many workers feel that the urinary and gonococcal infections require only a small quantity of drug for a therapeutic effect and, therefore, administer only 2-3 gms. (30-45 gr.) per day in divided dosage to adults.

It is preferable to give all of these drugs by the oral route; however, it is possible to give them by other routes—intravenously, subcutaneously, intramuscularly, rectally, and intrathecally. There are times when it is undesirable or impossible to administer by mouth. Whenever the parenteral route is used it should be discontinued as soon as it is possible to go back to oral administration.

Parenteral sulfanilamide is usually given subcutaneously in a 1% solution; it can also be given by vein. As for sulfapyridine, sulfathiazole and sulfadiazine, soluble sodium salts are available for intravenous use. It has been our practice to give the sodium salts in distilled water, or physiological saline, the dose being 5-8 gms. (75-120 gr.) given once or divided and given in two infusions twelve hours apart.

The sodium salts may be given by hypodermoclysis, in 0/5 to 1% solution, but, as most of the pharmaceutical houses do not sterilize them, it is probably better not to give them by this route, but by vein. It has not seemed necessary to give them in 33% solution intramuscularly when other more available and comfortable sites are available. The rectal route has not been necessary, and absorption therefrom is irregular and slow. Neither has intrathecal therapy seemed warranted, for large intravenous doses readily enter the spinal fluid. There have been scattered reports in the English literature of lower extremity paralysis following the intraspinal use of sodium sulfapyridine.

Toxic manifestations. The sulfonamide compounds not only interfere with the metabolism of the bacteria, but also with the host. The latter's various systems may become profoundly disturbed: the central nervous system with mental depression and psychosis; the hematopoietic system by anemia, leukopenia, agranulocytosis, purpura, cyanosis, and hemolysis of red blood cells; the gastrointestinal tract by nausea, vomiting, and diarrhea —and its appendage, the liver, by hepatitis; the genito-urinary tract by hematuria, anuria, and uremia; and the skin by rashes. In addition to such toxic reactions, an acquired sensitivity may develop. This sensitivity may be specific to one drug, or the whole group, and may be heralded by rash, fever, chill, anemia, jaundice, nausea or vomiting. In general, a drug sensitivity is similar to serum sickness in that it comes on after a latent period. It may last a year or indefinitely, so far as we know, and may reappear when the subject again receives a small quantity of the drug. The above toxic and

sensitivity reactions were very alarming to the physician when these drugs were introduced five years ago, but today we have learned not only to respect their potential danger but also how to better handle this double-edged sword. Ideally, the patient should be hospitalized, where laboratory studies can and will be obtained more frequently, but he may be treated at home if he is followed closely.

The toxic manifestations of a series of six hundred adult hospitalized cases receiving three of the derivatives are compared in Table I. The mechanism of control and prevention of toxicity will be discussed.

The most frequent symptoms encountered were anorexia, nausea, and vomiting. Sulfapyridine was the chief offender in this regard. The mechanism is either one of a local reflex or it is mediated indirectly through the central nervous system. It has been our experience that these symptoms appear early and pass off if the drug is continued. During this unpleasant period phenobarbital, 15-60 mg. (¼-1 gr.) given by mouth or hypodermically one half to three-quarters of an hour before each dose, is helpful. If nausea or vomiting appear later, for instance after a week, one should suspect a high blood concentration or that a sensitivity has developed.

Mental depression and psychoses are very rarely seen with sulfathiazole but more frequently with sulfanilamide and sulfapyridine. They are seen initially or associated with a high blood concentration.

Drug fever usually appears after the first week of chemotherapy. The temperature is usually characterized by a slow rise, but may be accompanied by chills and fever of the spiking variety. Sudden fever after the initial dose suggests that the patient has probably previously received one of the sulfonamides. The interval may be as long as a year.

Dermatitis is another form of sensitivity, usually making its appearance from the third to the thirtieth day of therapy—but in this series it occurs most frequently on the ninth day. The character of the rashes vary. Sulfanilamide and sulfapyridine seem most frequently to produce a red maculopapular eruption over the trunk and face. Sulfathiazole, in its turn, produces round red raised slightly tender areas over the extensor surfaces of the elbows and shins, suggestive of erythema nodosum. Either fever or rash are definite indications for discontinuation of the therapy.

The hematological disturbances have not been frequent with sulfapyridine or sulfathiazole. Anemias have been of two varieties—one is acute and appears in the first three days of therapy, the other and more common type develops over a period of days or weeks. Leukopenia is rare and no purpuras have been seen. Agranulocytosis was seen only twice (with sulfapyridine), and was fatal in both cases. None of the other untoward manifestations progressed following the cessation of therapy. Hepatitis is rare and we have seen it only with sulfanilamide.

Urinary complications arise from a supersaturation of the urine with the drug and are in the main part caused by the acetylated form which is more insoluble than the parent substance. Crystals alone in the urine are not a danger signal, but if the urinary output decreases, the crystals through trauma cause hematuria or cause obstruction by concretion. Hematuria is seen with sulfapyridine and sulfathiazole, for they have very insoluble acetyl derivatives, but is rarely seen with sulfadiazine. It has been our general experience that if the urinary output is maintained at 1,000 cc. per day hematuria is very unlikely to occur.

Acidosis is occasionally seen with sulfanilamide but not with the other drugs. The mechanism is not yet clear. Indications are for cessation of therapy and administration of alkali.

It has not been our practice in the past two years to give routinely equal quantities of sodium bicarbonate with the drugs. It is known that the acetylated compounds are slightly more soluble in alkaline solution, but clinically it has not made any significant difference in the incidence of renal complications whether or not it was given.

Contraindications. The only contraindication to chemotherapy, in our experience, is a known previous sensitivity. When anemia, leukopenia or jaundice are of other etiology than that due to the

TABLE I

TOXIC REACTIONS OF THE SULFONAMIDE DRUGS

	Sulfanilamide 200 cases per cent	*Sulfapyridine 200 cases per cent*	*Sulfathiazole 200 cases per cent*	*Clinical Significance and Procedure*
Nausea	36	60	34	Not serious—Phenobarbital or stop drug
Vomiting	11	52	22	Not serious—Phenobarbital or stop drug
Psychosis	4	4.5	0	Serious—lower dosage or stop drug
Fever	14	3	8	May be serious—stop drug
Rash	2	2	8	May be serious—stop drug
Anemia	7.5	3.5	2	If acute, serious—stop drug
Leukopenia	0.5	0.5	0.5	May be serious—stop drug
Agranulocytosis	0.0	1.5	0.0	Serious—stop drug
Hepatitis	1	0.0	0.0	Serious—stop drug
Hematuria	0.0	5	1.0	Serious—stop drug—increase fluid output
Neuritis	0.0	0.0	0.5	Serious—stop drug
Cyanosis	48	8	0.0	Not serious
Diarrhea	0.5	5	0.5	Not serious

sulfonamides, the drug may be safely used. The drugs should be given with care to individuals in the older age groups and those with frank renal disease or cardiac failure. It is in these patients that one may get an alarmingly high blood concentration because of poor excretion—with concomitant stupor and renal disturbances. It is also extremely difficult, and sometimes impossible, to force fluids in these individuals when one finds oneself in such serious trouble.

There is a feeling in some quarters (and we share it) that the sulfonamides may not only be useless therapeutically but may also aggravate an active rheumatic fever. There are no known incompatibilities of the sulfonamides with foods, drugs or anesthesias.

CLINICAL APPLICATION

The clinical application of these drugs has made tremendous strides; often these drugs have been tried on infections in humans before animal experimentation has taken place. They have been tried hopefully in almost all infections, and the literature is full of inconsistencies and uncontrolled studies. But as time has gone by it has become increasingly evident that their use depends on the bacteriology of the disease. Their antibacterial activity is fairly specific. In Table II is a list of the various diseases in which a clear-cut indication for their use is present.

The first important group of infections responding to these drugs comprised the hemolytic streptococcal infections; these include the puerperal infections, pneumonia, otitis media, mastoiditis, meningitis, erysipelas, cellulitis, lymphangitis, pharyngitis, etc. It is generally agreed that sulfanilamide is the drug of choice, but, if the patient cannot tolerate it, sulfadiazine, sulfapyridine or sulfathiazole may be used, and each is effective. One must remember in any disease involving the meninges that sulfathiazole is not the drug of choice, for it does not readily enter the spinal fluid.

Hemolytic streptococcal pharyngitis and tonsillitis usually run a spontaneous course. Chemotherapy is used entirely too much in these two conditions, but under certain circumstanes it may be helpful to use one of the sulfonamide compounds, namely, (1) in extremely ill patients, and (2) in those who have not responded to the usual conservative measures within forty-eight hours.

The second large group of bacterial infections yielding to chemotherapy are those due to pneumococcus—lobar and bronchopneumonia, meningitis, otitis media, mastoiditis and peritonitis. In the large city hospitals lobar pneumonia formerly had a mortality of 25-35%, depending on the severity of the infection. It is now a universal finding that the death rate has been cut to 5-15%.

There are few physicians who have observed the cure of pneumococcus meningitis with serum alone. Since sulfapyridine was introduced, there has been a real lowering of the mortality, but it still remains a serious disease so far as life is concerned.

Sulfadiazine and sulfathiazole are the drugs of choice in the treatment of pneumonia. Sulfapyridine is quite effective but is unpleasant to the patient because of its resulting nausea, vomiting and mental depression. In the treatment of mastoiditis effective drainage is of prime importance; the drugs will not replace surgical drainage, but are an aid to therapy. In the treatment of pneumococcus meningitis the drugs of choice are sulfadiazine and sulfapyridine, for they both penetrate well into the meninges. Serum therapy is a helpful adjunct given intravenously but not intraspinally. Intrathecal serum has, in our experience, increased the incidence of spinal canal block.

In pneumococcus infections the question of giving serum in conjunction with chemotherapy has not yet been answered, but most people with extensive experience prefer to give the bacteremic cases both serum and drug. This is especially true of the elderly patient with a pneumococcus Type III infection.

Staphylococcal infections as a group are difficult to treat with chemotherapy, as might be expected because of their tendency to produce localized abscesses. In the treatment of Staphylococcus aureus septicemia, cellulitis, and acute osteomyelitis, the drug of proved choice is sulfathiazole. In staphylococcal meningitis sulfapyridine has been considered as being the best, but it would now seem logical to try sulfadiazine. For the first time, to my knowledge, cases are reported as being cured of

TABLE II

THE DRUG OF CHOICE IN THE TREATMENT OF INFECTIONS

Disease	*Drug of Choice* *1st*	*2nd*	*3rd*	*4th*
Hemolytic Streptococcus				
Pneumonia	S.A.	S.D.	S.P.	S.T.
Otitis media and mastoiditis	S.A.	S.D.	S.P.	S.T.
Meningitis	S.A.	S.D.	S.P.	S.T.
Erysipelas	S.A.	S.D.	S.P.	S.T.
Cellulitis and lymphangitis	S.D.	S.A.	S.P.	S.T.
Puerperal sepsis	S.A.	S.D.	S.P.	S.T.
Pneumococcus Pneumonia	S.D.	S.T.	S.P.	
Meningitis	S.D.	S.P.		
Otitis media, Mastoiditis	S.D.	S.P.	S.T.	
Gonococcus Urethritis, Salpingitis	S.T.	S.P.	S.A.	
Arthritis	S.T.	S.P.		
Conjunctivitis	S.P.	S.D.	S.A.	
Meningococcus Meningitis	S.D.	S.P.	S.A.	S.T.
Staphylococcus Septicemia	S.T.	S.D.	S.P.	
Cellulitis	S.T.	S.D.	S.P.	
Meningitis	S.D.	S.P.	S.T.	
Osteomyelitis	S.T.	S.D.		
E. Coli Urinary Infection	S.T.	S.P.	S.A.	
Peritonitis	S.T.	S.P.	S.D.	
	(equally effective)			
Bacillary Dysentery	S.G.			
Chancroid	S.A.	S.P.		
Trachoma	S.A.			
Inclusion Blennorrhea	S.A.			

Abbreviations: S.A. = sulfanilamide
S.P. = sulfapyridine
S.T. = sulfathiazole
S.D. = sulfadiazine
S.G. = sulfaguanidine

staphylococcal cavernous sinus thrombosis by the use of sulfathiazole and heparin.[3]

Meningococcus meningitis responds to sulfanilamide, sulfathiazole, sulfapyridine, or sulfadiazine. It is generally agreed that serum therapy adds nothing that chemotherapy will not do alone. Sulfadiazine or sulfapyridine are the drugs of choice here. They enter the spinal fluid easily and are potent.

The sulfonamide compounds have replaced all of the previous forms of therapy for gonorrhea in the male and female. Sulfanilamide, sulfapyridine and sulfathiazole have been tried successively. Sulfanilamide, the first drug, was surpassed by sulfapyridine, and now sulfathiazole seems to be the drug of choice. It is most desirable to keep the patient at rest while the drug is being administered, but this is not always possible from an economic and social standpoint. Smaller dosage than that used for systemic infections may be used, 2-4 gms. (30-60 gr.) a day given over a period of seven to ten days. The sulfonamides are likewise dramatic in their effect on acute gonococcal arthritis and gonococcal conjunctivitis. Resistant cases of gonorrhea or of endocarditis still require artificial fever therapy in addition.

The colon bacillus infections have responded to this group of compounds. First and simplest are the urinary infections. The lower down the infection is in the urinary tract the more quickly response may be expected; i.e., cystitis is the easiest, pyelitis next, and pyelonephritis is the most difficult to clear up. The results here are not as dramatic as in the previous infections and it is rare for the colon bacillus in the genito-urinary tract to make life hazardous. There is no marked superiority of one of the derivatives. Sulfathiazole is effective and is more pleasant to the patient.

The story of peritonitis is quite different. Usually this is caused by the colon bacillus or a mixture of the enteric inhabitants. It usually develops secondary to a ruptured appendix, a colon resection, or the perforation of the gut—accidentally or operatively. Nowadays it is unusual to lose a patient with peritonitis. Chemotherapy does not deserve all of the credit, other factors being the Miller-Abbott tube, more attention to the hydration of the patient, transfusions, and improved surgical technic. Ravdin and Lockwood[4] were the first to point out the importance of this new adjunct for the surgeon. The drugs may be used locally and systemically. Sulfanilamide has been most widely used. It is probably the drug of choice for intraperitoneal instillation, for it is most soluble and is nonirritating. The sodium salts have a hydrogen ion concentration of approximately 10 to 11 which is quite alkaline and irritating to an already sick peritoneum. It is the general policy of the surgeons at our hospital to use 5-12 gms. (60-180 gr.) of sulfanilamide powder at the time of operation in all cases with obvious peritonitis or known fecal contamination. The major portion is sprinkled into the peritoneal cavity and 2-4 gms. is placed in the muscle layers on coming out of the abdomen. This affords a high local concentration of the drug and an adequate blood concentration for approximately forty-eight hours, as this compound is quite soluble and absorbs easily. Auxiliary drug is given parenterally for two to four days more, or by mouth as soon as the patient can tolerate it. Usually sulfapyridine, sulfathiazole, or sulfadiazine are the auxiliary drugs used for they have readily available sodium salts which can be poured into the parenteral fluid (approx. 5 gms. daily) which the patient receives postoperatively.

Sulfaguanidine has recently been introduced[5] and accepted as a drug for use in the treatment of bacillary dysentery. Experience with it is limited. We recently had a small epidemic of Flexner's dysentery in the Presbyterian Hospital in New York City. The use of sulfaguanidine was far from dramatic. The cases seemed to follow their usual course but it is very difficult to evaluate a drug in this disease, for it is usually not hazardous to life and is self-limited. We have used it in chronic ulcerative colitis without benefit, also preoperatively in colon resections. It does reduce the number of coliform bacteria in the stool but does not sterilize the gut or rid the intestine of gram-positive organisms. As there is no available sodium salt, its use surgically is limited to a preoperative medication. The use of this derivative is, in our experience, disappointing, but it is hoped that other compounds of this nature may be found that will prove effective.

Sulfanilamide is the preferred drug in the treatment of chancroid. Two eye infections—trachoma and inclusion blennorrhea—respond well to sulfanilamide. Chronic infections as a group do not respond to the drugs as well as acute infections with the proper bacteriology. Their use is less dramatic, less effective, and has to be continued over a longer period of time.

The story of the local use of the sulfonamide compounds is not yet finished. Their use is based on an attempt to obtain a high local concentration at the site of injury. It would seem much more logical to combine this use with a systemic drug given orally or parenterally. One is concerned not only about the local area in an infection, but also about an effective barrier to prevent a generalized blood stream spread. Glowing reports regarding the local use of these drugs are reaching us from war-torn Europe. Also, the American literature is growing,[6,7,8] but it is all too early and the series are too small and uncontrolled to be conclusive as

[3] Schall, LeRoy A.: Treatment of Septic Thrombophlebitis of the Cavernous Sinus; *J.A.M.A.* Vol. **117**, No. 8, pp. 581-584 (Aug. 23) 1941.

[4] Lockwood, John S., and Ravdin, F. S.: The Prophylactic Use of Sulfanilamide in Abdominal Surgery, *Surgery* Vol. 8, No. 1, pp. 43-55, (July) 1940.

[5] Marshall, E. K.; Bratton, A. C.; White, H. J., and Litchfield, J. T., Jr.: Sulfanilylguanidine Chemotherapeutic Agent for Intestinal Infections, *Bull. Johns Hopkins Hosp.* **67**: 163, (September) 1940.

yet. It has been tried in compound fractures, osteomyelitis, burns, lacerations and bed sores.

The prophylactic use of these drugs has not been established. Coburn and Moore, in New York,[9] and Thomas *et al.*[10] of Baltimore, gave small continuous doses of sulfanilamide, from October 1st to June 1st, to inactive rheumatic subjects in order to prevent hemolytic Streptococcus throat infections and relapses of rheumatic fever consequent thereupon. In their experience it has been helpful. Further suggested uses, not yet proven effective, are in burns,[11] compound fractures,[6,7,8] tissue injuries, accidental or operative intestinal surgery, prostatectomies, etc. Long, carefully controlled series of studies are not yet available.

Finally, we must consider a few of the principles of therapy governing the use of the sulfonamide compounds in the treatment of infections. Dr. Yale Kneeland,[12] of our hospital, has reported on these, and they are applicable to any infection—using any of the derivatives.

1. Have a clinical and bacteriological diagnosis established before starting therapy. In other words, have a target toward which to point the therapeutic weapon. Usually in a clear-cut lobar pneumonia the blood and sputum cultures can be taken and therapy started at once. Very often it happens, if one does not abide by this rule, that after a few days of therapy without a response, one becomes aware that one was treating a temperature curve and not a disease for which the therapy might be useful.

2. Given the diagnosis, clinical or bacteriological, choose the drug that seems best indicated for the particular infection. The various derivatives exhibit varying degrees of inhibition toward different organisms, and there are the differences in absorption, acetylation, and excretion to guide in the choice of a drug.

3. Give the drug in adequate dosage, *early, boldly* and *consistently*, with an effort to obtain and maintain a blood concentration of 5-8 mg.% free drug. The criteria of dosage for systemic infections should be the blood level and not the grams of drug ingested. There may be an exception to this rule in the treatment of urinary infections, where the important factor is urine level instead of blood concentration. Fortunately, the phenomena of drug-fastness is rare, but it has been observed in cases of the pneumococcus and gonococcus. This is a state of affairs where the drug no longer exhibits an inhibitory effect on the offending organism. It is usually produced by small, inadequate dosage. Increasing the dosage does not correct it.

4. Follow the patient closely, see him daily, and watch for toxic reactions. The ideal management of a case should involve:

(a) A complete blood count at the beginning of the therapy, again on the second day, and then two to three times a week thereafter.

(b) A blood level determination on the day following the initiation of therapy, and then on alternate days.

(c) Daily urine examinations, with particular attention to the presence of red cells and crystals.

(d) Measure the fluid intake and output. Force fluids so that the patient will void 1,000 cc. (1 qt.) daily.

(e) Preferably, the patient should be out of the sun and not ambulatory. Ultra violet light often causes an early sensitivity. He should not be ambulatory, for his mental processes will be slowed up, particularly if the blood level is high. It is better that he not be engaged in skilled activity or in one which, if not done properly, might endanger the lives of others.

Having carried out these principles, one should get the desired therapeutic result easily and quickly within twelve to seventy-two hours. Failure to get the desired therapeutic response indicates, in our experience, one of five conditions:

1. Inadequate dosage (i.e., ineffective blood concentration).
2. Incorrect diagnosis—clinical or bacteriological.
3. Complications, such as an abscess or empyema which should be drained.
4. Overwhelming infection. Other supportive measures are indicated, such as serum, transfusion, etc.
5. Drug fever. Usually this appears after an initial lowering of the temperature, but occasionally it may be impossible to detect from the temperature chart when drug fever has appeared. In such cases it is apparent only after stopping the drug and observing a return of the temperature to normal. Often, the patient does not appear as ill as the temperature would indicate. The white count may or may not be elevated. The simultaneous appearance of rash clinches the diagnosis.

[6] Jensen, N. K.; Johnsrud, L. W., and Nelson, M. C.: The Local Implantation of Sulfanilamide in Compound Fractures, *Surgery* **6**: 1-12, (July) 1939.

[7] Campbell, Willis C., and Smith, Hugh: *Jour. Bone and Joint Surgery* Vol. **XXII**, No. 4, pp. 959-972, (October) 1940.

[8] Key, J. A.: Use of Sulfanilamide and Sulfathiazole in Orthopedic Surgery, *J.A.M.A.* Vol. **117**, No. 6, pp. 409-412, (Aug. 9) 1941.

[9] Coburn, Alvin F., and Moore, L. V.: *J. Clin. Invest.* **18**: 147 (Jan.) 1939.

[10] Thomas, Caroline B., and France, Richard: *Bull. Johns Hopkins Hosp.* **64**: 67, (Jan.) 1939.

[11] Pickrell, K. L.: A New Treatment for Burns, *Bull. Johns Hopkins Hosp.* Vol. **LXIX**, No. 2, pp. 217-221, (August) 1941.

[12] Kneeland, Yale, Jr.: The Treatment of Pneumonia with Sulfapyridine, *Med. Clin. North America* Vol. **639**, (May) 1940.

ERRATA

In the article on "Sulfadiazine," by Doctors H. M. Powell and K. K. Chen, which appeared in the November issue, 1941, vol. 34, page 604, Figures 1 and 2 should be transposed. The titles and legends are correct.

This is the twelfth of a series of articles on Indiana's "Twelve Great Killers." In 1940 there were 383 deaths from syphilis in Indiana.

MASSIVE ARSENOTHERAPY IN SYPHILIS‡

GEORGE W. BOWMAN, M.D.*
FRANCIS G. SHEEHAN, M.D.†
INDIANAPOLIS

The practice of medicine is full of hobbies, and we are often told that we rush to accept new drugs or technics exploited by premature publicity or glib salesmanship; as wisely override them in many contra-indicated instances, condemn them, and as quickly toss them into the discard. Later we may redeem them and may find their true niche and due evaluation with proper use under indicated conditions. About three decades ago, "606" was given to the world. Press publicity to the laity with its "one shot" promise resulted in countless thousands of patients receiving only one injection and no other treatment for a period of years when they might or did present themselves with an advanced cardio-vascular, visceral or central nervous system syphilis. Today, we are again dealing with another so-called quick cure, the "Five Day" continuous treatment, which unfortunately the press has again prematurely acclaimed to the public.

Intensive search for new preparations or improvements of already existing older arsenical or heavy metal products, newer methods of approach or schedules of routine has been constant since the advent of the original *salvarsan* and Ehrlich's idea of an *omnia magna sterilizans* startled the world.

It is firmly believed that all of us who have dealt much with syphilis in the past feel that the most intensive consistent treatment possible, and best tolerated by the individual, is the most desirable. However, we must never lose sight of the fact that we have a patient to remember and to treat as well as a disease. Massive therapy may be divided into multiple daily injections or rapid and slow continuous drip methods. The latest treatment method involves the administration of massive doses of the particular preparation used, given slowly (approximately 30 drops per minute) by a continuous intravenous drip over a five-day period. The concentration in the so-called open gravity jar method was kept relatively fixed by the addition of a known amount of the arsenical in a definite quantity of dextrose solution at given intervals. This idea was the outcome of research undertaken to determine the cause of speed shot or some other factor connected with it in general intravenous medication. This led to the suggestion of its application in intravenous arsenotherapy. The originators, Hyman, Chargin and Leifer, working with the Mount Sinai Hospital, United States Public Health Service, New York Academy, Cornell and Bellevue Hospitals, and the New York City Bureau of Venereal Diseases at Mount Sinai Hospital emphasized the point that the work was experimental and not ready for general clinical usage. In their first series they had a goodly percentage of various types of untoward reactions with, however, a negligible, and perhaps indirect, single mortality. It must be remembered that the many manifestations of anti-syphilitic drug reactions are essentially those of an acute drug poisoning, an idiosyncrasy, a cumulative effect with far reaching results, or late complications.

Massive drip therapy necessitates at least a full week's hospitalization, a full time nursing service, adequate laboratory facilities, and an ample financial budget to maintain it. Its cost at a minimum per capita per diem, to the average institution without a definite assignment of beds, would again make it almost prohibitive under present operating budgets. The dangers and reactions of this new method have not as yet been conclusively evaluated, nor have the results and possible late serious sequelae been studied over a long enough period of time. At the onset, arsphenamine (old salvarsan) was used, but was at once abandoned and replaced with neoarsphenamine and later mapharsen. The spirocheticidal action of the arsphenamines is largely dependent on arsenoxide. Conversion of arsphenamine and neoarsphenamine into an arsenoxide results in the blood stream. Mapharsen is an arsenoxide. Greater kidney damage may result with mapharsen, and therefore the urine must be carefully watched for albumen.

Neoarsphenamine has a greater damaging effect on the liver, but this is more transitory. Excretion takes place largely through the feces (38-39%) and urine (22-23%), or a total of a little more than 60%, with the remaining (less than 40%) unaccounted for in other ways. Some of this drug being excreted into the stomach may be a possible source of the frequent nausea. Blood concentration decreases directly with the length of time after injection. There is a fall in the arsenic level after the first day which remains on a practically maintained plateau after the third day. Animal and human excretory studies show a marked parallelism.

The open gravity jar and fixed amounts of arsenical added at set intervals is in reality not a continuous method when compared to the closed vacoliter type gravity jar in which the entire arsenic dosage in the day's total amount of solution is used. By this method after the entire intake (2,000 cc.) is absorbed, the patient is able to be up and about the ward, and his late evening is free. Regular diet is given.

‡ Read before the Indianapolis Medical Society on April 8, 1941.

* Chief, Bureau of Venereal Disease Control, Indiana State Board of Health.

† Department of Syphilis, Indianapolis City Hospital.

The use of the designation "Five-day Syphilis Treatment," as it is now generally known, is not the most desirable appellation. Lay press publicity has, no doubt, made other designation of this drug next to impossible. However, it would be preferable to call it "Massive Continuous Arsenotherapy."

Having met the requirements of the original advisory committee, a cooperative drip therapy research study group has been designated, and Indiana is fortunate, we think, in being able to qualify as one of the official observation centers in this study. The other cooperating members, besides the Mount Sinai Hospital group, are located largely in the central states; at the Herman Keifer Memorial Hospital in Detroit, for the State of Michigan; at the Cook County Hospital, for the State of Illinois; at the University of Wisconsin, the University of Minnesota, and the University of Iowa, for their respective states; at the Marine Hospital at New Orleans, Louisiana; the Isolation Hospital at St. Louis, Missouri; the Cleveland City Hospital, for Ohio; and the Indianapolis City Hospital, for Indiana. Uniform records, like technic, identical dosage, and similar standard laboratory procedures are being followed by each station. Blood and spinal fluid specimens are divided three ways—to be examined in the home hospital, the central laboratory of the State Board of Health, and also in the laboratory of the University of Michigan, by Doctor Reuben Kahn, for the entire cooperative study group.

During the past few years flocculation tests have gained in favor and use because of their relative simplicity in contrast to the complexity and greater cost of complement fixation tests, such as the Wassermann. Flocculation tests in the serodiagnosis of syphilis are founded on the principle of the interaction of normal tissue lipoids (antigen) with the antibody present in the serum of syphilitic individuals. Next to the Kahn test, the Mazzini test is perhaps the most widely used flocculation test, especially throughout this section. Kahn uses his standard, presumptive, and quantitative tests on all of these specimens. The quantitative test is an index of the amount of syphilitic serum in the blood stream. The highest titer we have had in any case was 440 units. Data is pooled by the different cooperating members, and periodic meetings of the study group are held for round table discussion.

Mapharsen is the arsenical being used exclusively at this time by the cooperative group. No adjuvant or auxiliary treatment is being used. A total dosage of 1200 milligrams over a five-day period now appears to be the most satisfactory treatment and is probably superior to neoarsphenamine, with less toxic manifestations. After this original study has been completed, combination therapy will no doubt be substituted. Most of us feel that arsenic plus heavy metals is better than arsenic alone. Curative doses are additive. Consequently, when combination therapy is instituted the total arsenic dosage will probably be reduced to about 900-1,000 milligrams of mapharsen. The only real test tube of value for human syphilis is the human being. Only positively diagnosed primary or early infectious secondary cases, with positive dark field or positive serology and having had no previous treatment whatsoever, are being selected.

TABLE I

	Primary Sero-Neg.	*Primary Sero-Pos.*	*Secondary*
White	1	10	35
Colored	8	25	62
Total	9	35	97

(3 original Primary and 5 Secondary infectious relapses were re-treated.)

Epidemiology and contact sources, and follow-up of at least 80% of all cases for a period up to five years is mandatory; and a continuation of Federal approval and funds is dependent upon this procedure. Out of 106 contacts with the first particular group reported, 41 were found to be positive, 14 were negative, 41 were already under treatment, and 10 from other distant locations were contacted by mail and were either already receiving treatment or were placed under treatment.

Differential blood counts; urinalysis, chemical and microscopic; icteric index; urobilinogen; urea clearance; careful general physical examination and flat chest plates are made on all cases. Complete check-up before and immediately following treatment, with weekly check-ups and serologies for the first month, monthly for the first six months, and at three to six-month intervals, unless otherwise indicated, up to a period of five years is the present scheme. Patients are held at least two days after the completion of therapy. Spinal fluid specimens are taken, and again at six or twelve month intervals.

No attempt has been made on a large series of latent or neurosyphilitic cases, with the exception of one being run at the Sing Sing Prison. Perhaps this will be undertaken later in order to build up increased data regarding its effectiveness in such cases.

Only a relatively few pregnancy cases have been so far treated by the study group. The Mount Sinai unit contemplates about a 200 case series under a special grant. We treated one case of a white primipara, at mid-term, who gave no history of primary lesion but who was in florid secondary stage on admission. Treatment and post-treatment was even more uneventful than average. The case was undertaken only after consultation with and approval of the obstetrical department. Another patient was in florid secondary stage with annular syphilides. She conceived within the first month following treatment. The supposed father was also under treatment by standard methods in the outpatient department. She remained clinically negative, with a progressively diminishing serology and without any further treatment, up to her delivery. Another para six was admitted with florid secondary syphilis at about seven and one-half months'

term. Another patient with a primary lesion of approximately ten days' duration, and who was eight months pregnant, was treated. The deliveries of these cases were all normal. The babies were all clinically and are all serologically negative. Cord blood and corporeal infant blood, as well as darkfield examination of umbilical vein wall scrapings and examination of the placenta, were made.

In the Chicago area alone, with a 20,000 case load, some 18 deaths occur monthly from standard treatment methods or from syphilis. Perhaps an equal number actually occurs which are not reported because of the patient's family, his insurance, or because of lack of information on the part of the physician or the hospital. Quite recently a patient who had received only two average size doses of arsenical in a distant state was admitted, approximately one week after her second injection, in a comatose state from which she did not recover. Objectively, there was no evidence of her syphilis, but autopsy revealed a typical hemorrhagic encephalitis. There were 241 deaths in Indiana in 1939 in which the cause of death was listed as syphilis. There have been six deaths in about 1,700 cases in the study group; two occurred in two of the lower number case groups. In at least three cases alcohol was a probable factor. Necropsy in two cases showed evidence of acute and chronic alcoholism, and the third was the death of a seaman whose history also pointed to the possibility of alcohol being a contributory factor. In a resume review of the research study group cases presented at the American Medical Association in June, a mortality rate of .3% in better than 900 cases was given. More than 1,600 cases had actually been treated by the group at that time. Consequently, the mortality rate was even lower.[1]

Table II shows age, sex, color and marital status data.

In our series of cases some 58% had a primary fever of 99 degrees plus on the first day, 13 on the second day, and very few on the fourth and fifth days. The maximum temperature of this primary Herxheimer fever was 104.4 degrees. Secondary fevers occurred in 23 cases on the second, third and fourth days, 30 on the fifth and sixth days; 13 on the seventh day, and 2 on the eighth day. The maximum temperature in secondary fever cases was 106.6 degrees on the third day following completion of treatment. This continued from the fifth to the twelfth days. The longest duration of secondary fever was ten days, or from the fourth to the fourteenth day. Toxicoderma was seen in five cases and was usually very transitory, but one was of seven days duration. The majority of our patients have been in the 20 to 30 year group, and the next largest number in the adolescent years up to 20. (See Table II.) We have had one case of encephalitis which occurred in the second day post-treatment and which made an uneventful recovery.

[1] *Journal A.M.A.*, October 14, 1941, pages 1160 to 1167.

TABLE II

Color	*Ages*					
	-20	*21-24*	*25-29*	*30-39*	*40-49*	*50+*
White	9	11	8	10	3	
Colored	39	25	15	11	2	
Total	48	36	23	21	5	

	Sex		*Marital*		
	Male	*Female*	*Married*	*Single*	*Wid. Sep. Div.*
White	16	26	12	16	14
Colored	42	49	16	64	11
Total	58	75	28	80	25

The first case of our series was treated over a year and one-half ago.[2] He was recently reported to us by the Selective Service Board of another state as being clinically and serologically negative. Another case was a patient on whom a nephrectomy had been performed several years before. On routine chest plate examination one patient was found to have a moderate sized pulmonary cavity. His treatment period was smoother than average, with no apparent untoward result. However, about a month after treatment he developed a double lobar pneumonia. Clinically and serologically his syphilis treatment was satisfactory. X-ray examination following his pneumonia revealed activity of his tuberculosis on the opposite side. We have retreated eight patients in our first series, all of which were clinical infectious relapses, corroborated by an upsurge in their serology.

A patient having a falling titer serology and who shows a marked rise should be considered as a possible serologic relapse, and should be more closely and more frequently observed. The case showing practically a complete negativity but who within a period of two months shows a persistent resurgence of his positivity, other intercurrent infection or causative factor having been eliminated, should be classed as a serological relapse. In a goodly percentage of our re-treated cases there has been a definite history of excessive alcoholism in the interim following completion of their first five day treatment. Likewise, they have made rapid clinical recovery on re-treatment. Recently a difference in the spirocheticidal effect of different lot or serial numbers of the arsenical used has been suggested.

One of our patients, according to accepted criteria, had a new infection following five years of clinical and serological negativity including spinal tests, and with more than average treatment. Another case had a new genital primary lesion, positive darkfield, distant from any previous location or scar, having had negative blood and spinal serology following adequate treatment and been without any evidence of previous infection for almost seven years. Neither of these patients were re-infected following massive five day therapy.

Vein ache, neuralgic in type, is a rather constant feature in practically all patients. It is transitory, and usually the use of an ice bag only is needed for relief. The ingestion of high carbohydrate diet or

[2] *Jour. Ind. State Med. Assn.* 33: 368-369 (July) 1940.

fluid intake prior to and during treatment apparently has not been a factor in reducing the nausea. In the event of excessively high primary fever (over 101 degrees) or other indications occurring on the first day, treatment is suspended and resumed the next day with a prorated unused dosage of the arsenical added. Other treatment is symptomatic. An apparent increase of menstrual volume and an increase of vaginal moisture has been noted during treatment. The question of arsenic stimulation or volume fluid intake are factors to be considered. Further study of these questions and of arsenic concentration is planned.

An apparent greater number of reactions during periods of high temperature or high humidity has been noted. The practice in industry, where work men are subjected to intense heat, of the ingestion of salt has been common. Because of a lowered blood chloride content, under similar conditions, in our patients the substitution of a 5% dextrose in distilled water was made to dextrose in normal saline solution. The diminution of untoward reactions was apparent. Interpretation and results of this particular group of infectious early syphilis cases, at the time of writing this paper, are given in Tables III, IV, V, VI, VII, VIII and IX.

TABLE III

SUMMARY OF 43 CASES OF PRIMARY SYPHILIS

Darkfield on admission positive	97.6%
Kahn test on admission positive	48.8%
Mazzini test on admission positive	74.4%
Kahn test at discharge positive	65.1%
Mazzini test at discharge positive	86.04%
Both Kahn and Mazzini tests at present time negative	25
Kahn negative and Mazzini positive at present time	3
Both Kahn and Mazzini tests positive at present time	15
Primary sero-negative	9
Primary sero-positive	35

(Due to Primary-Secondary co-existent in one (1) case, it is not included in this summary but is counted in Secondary Summary.)

TABLE IV

SUMMARY OF RESULTS OF 43 CASES OF PRIMARY SYPHILIS

Darkfield positive on admission	42
Darkfield doubtful on admission	1
Kahn test positive on admission	21
Mazzini test positive on admission	32
Kahn test partial positive on admission	1
Mazzini test partial positive on admission	1
Kahn test negative on admission	12
Mazzini test negative on admission	8
Kahn—no report—on admission	7
Kahn test positive at discharge (end of treatment)	28
Mazzini test positive at discharge	37
Kahn test partial positive at discharge	0
Mazzini test partial positive at discharge	4
Kahn test negative at discharge	8
Mazzini test negative at discharge	2
Kahn—no report—at discharge	7

(In first 33 primary cases, in 7 the Kahn was negative throughout the observation period; of these, 4 were strongly Mazzini positive and 3 were partial positive.)

TABLE V

INTERPRETATION OF RESULTS

Time post-treatment is noted.

GOOD—Clinically and serologically negative.
SATISFACTORY—Clinically negative, declining serology, but all tests not completely negative (usually Mazzini test is last to become negative).
NO CHANGE—Serologically but clinically negative.
POSSIBLE SEROLOGIC RELAPSE
CLINICO-SEROLOGIC (infectious) RELAPSE
RE-TREATED
LOST
TRANSFERRED

TABLE VI

RESULTS IN PRIMARY SERO-NEGATIVE SYPHILIS

		At end of 3 mos.	*6 mos.*	*6-12 mos.*	*1 yr.+*
GOOD	8	2	1	3	2
SATISFACTORY					
CLINICO-SER. RELAPSE	1	1			
LOST	2	2			
TRANSFERRED	1				1

(Infectious relapse retreated)

TABLE VII

RESULTS IN PRIMARY SERO-POSITIVE SYPHILIS

		At end of 3 mos.	*6 mos.*	*6-12 mos.*	*1 yr.+*
GOOD	17	4	8	3	2
SATISFACTORY	10	6	4		
NO CHANGE	6	4	2		
POSITIVE SER. RELAPSE	1		1		
CLINICO-SER. RELAPSE	2	2			
LOST	7	4	3		
TRANSFERRED	1	1			

Previous infection—2. Infected prior to five day therapy, adequately treated, positive history and data and accepted criteria of reinfection.

TABLE VIII

SUMMARY OF 98 CASES OF SECONDARY SYPHILIS

Darkfield positive (40.2%) on admission	40
Kahn test positive on admission	96
Mazzini test positive on admission	96
Kahn test negative on admission	2
Mazzini test negative on admission	2
Both Kahn and Mazzini negative at present time	18
Kahn negative; Mazzini positive at present time	29
Both Kahn and Mazzini positive at present time	51

TABLE IX

RESULTS IN SECONDARY SERO-POSITIVE SYPHILIS

		At end of 3 mos.	*6 mos.*	*6-12 mos.*	*1 yr.+*
GOOD	33	4	9	13	7
SATISFACTORY	24	13	5	5	1
NO CHANGE	27	18	5	3	1
POSITIVE SER. RELAPSE	1		1		
CLINICO SER. RELAPSE	5	5			
RE-TREATED	8	3P-5S			
LOST	3	2	1		
TRANSFERRED	2	2			

There is a fast approaching situation in our civil and military life which may make this new treatment method highly desirable and advantageous to the general public welfare. With our Selective Service in effect and 75% of our new infections occurring in this age group, many will ask for, or will be recommended for this type of therapy. Its place—especially in the early infectious primary or

secondary cases, or possibly later in the old, long treated so-called Wassermann-fast case, female patients in child-bearing age, and the urgent need in an otherwise physically fit young man inducted for military service—all would be justified from a public health viewpoint. Again with general military service there will probably be a marked increase in the number of marriages. Many marriages will be stepped up and perhaps some of these marriage candidates will be in active, infectious, transmissible syphilis, and will have had none or but little treatment. A marked rise in positive infection rates, beginning in the adolescent years, occurs and must be taken into consideration in our defense program. Likewise, accepted ethical and moral standards will become less defined, and many a young woman may be swept off her feet by the glamour of a boy-friend or a brother in uniform. We are probably now entering into the greatest migration of workmen to industrial defense activities ever experienced. The possibility of being able to use some such method of putting infectious individuals out of circulation and giving them and the general public a greater security is no mean factor. We feel that from an epidemiological standpoint this has been a most valuable piece of work because of the number of contacts placed under treatment by us, or under standard treatment methods elsewhere, as previously mentioned.

The dangers and reactions of this method of treatment have not as yet been conclusively estimated nor their late complications become known. It must be repeated quite positively that the use of this method should not be encouraged among inexperienced operators; it is strictly a hospital procedure and adequate hospital facilities and the assistance of full time, trained personnel is imperative. However, it must be said that the results, so far, certainly are most encouraging and apparently offer the most promising and safest approach in the treatment of early syphilis that we have had in our present era.

ORGANIZED MEDICINE AND TUBERCULOSIS*

BENJAMIN GOLDBERG, M.D.†
CHICAGO, ILLINOIS

To the average individual the word "organized," as applied to a group who work together, implies the right to bargain, to fix wages, to strike, and to refuse to serve. Associated with medicine it gives the thought of a guild which might, as any group of workers, usurp such prerogatives as mentioned above—a guild of doctors who, as a group, would fix the terms under which they would or would not serve the needy and the sick. But this is not a reality; it is not a truism. Organized medicine is, in fact, the grouping together of physicians who, to stimulate improved knowledge in their profession and to distribute such knowledge for better service to humankind, have set up machinery to enforce certain standards of education and training in the art and science of the practice of medicine. This, in order that sufficient intelligence to cope with the needs of the service in their profession shall be found in those who are to practice medicine.

Having set this basic standard, individualism is allowed to assert itself; individualism in research, in private practice, and in public health. Each individual finds his level in the accomplishments he develops and in the contributions he, as a physician, is able to make to his fellow men, to the community where he resides, or to the world as a whole.

The progress which has resulted from such individualism may be measured in the following few of a long list of medical accomplishments: vaccination against smallpox; inoculation against diphtheria and scarlet fever; the almost complete eradication of yellow fever and typhoid fever; the development of insulin in diabetes mellitus, of liver extracts in the anemias, and, of course, the marked decrease in mortality from tuberculosis. It is the latter, the present tuberculosis mortality (approximately 45 per hundred thousand in the registration area of these United States) which attracts our attention. I can well remember an incident of twenty years ago when the Health Commissioner of my home city, during a discussion on the further public health attack on this disease, looked across at me and said, "We have now reached the irreducible minimum in tuberculosis mortality." The only answer I could give was that the irreducible minimum is zero; in other words, the total absence of the disease. I also recall that forty years ago almost every other home in our community housed same individual afflicted with consumption. Now we note that in this country tuberculosis has lost the title it held for so many years, "Captain of Men of Death," and has dropped to number seven in the mortality tables.

Our citizenry should know that there are other countries where tuberculosis death rates continue to range between two hundred and five hundred per one hundred thousand. We must also remember that only two decades ago the age group of 21

† President of the American College of Chest Physicians, and associate professor of medicine at the University of Illinois College of Medicine, Chicago, Illinois.

* Read before the luncheon meeting of members of the Anti-Tuberculosis Committee of the Indiana State Medical Association, September 24, 1941, Indianapolis, Indiana.

years and over showed evidence of tuberculous infection in at least 95 per cent of the inhabitants of this country, as determined by tuberculin sensitization tests, and that today only about fifty per cent of this same age group evidence such infection. How has this been accomplished? The individualism that manifested itself in certain groups of our practitioners of medicine has been a dominant factor. More important, however, is the truth of the axiom I laid down some twenty-five years ago—that the private practitioner of medicine is the first line of defense in public health endeavor. The sick individual is usually seen by the one who has the health interests of that individual in his keeping, the family doctor. The knowledge which has been developed in our medical men with reference to the diagnosis of tuberculosis, the prevention of its spread, and the adequate management of the disease is also a very important factor in its eradication.

The most important tenet of the American College of Chest Physicians, the outstanding group in this country which is today interested in tuberculosis, is its cooperation with the general practitioners in the important problems linked with tuberculosis. One of the favorite sons of your state, Dr. James H. Stygall, is chairman of the council that heads the College group promulgating such work.

If we were to list the important factors in the achievement of the low mortality attained in this country, we would have to present the following three considerations:

1. The detection of the tuberculous individual having a positive sputum and controlling that individual, or the disease which he has, so that he is not capable of further infection spread.

2. The building and development of many institutions where such individuals might be housed and treated to prevent infection spread.

3. The work of the veterinarian in eradicating tuberculosis in cattle, resulting in the fact that less than one-half of one per cent of cattle housed for dairy purposes in this country show evidence of tuberculosis. Thus, the almost complete absence of tuberculosis bacilli in this most important article of food has resulted in nearly a complete disappearance of the nonpulmonary forms of this disease.

In giving credit for the above, we should mention the discovery of the tubercle bacillus by Robert Koch in 1882; the realization of the value of rest, as first brought to the world in the sanatorium management of the disease, by Bremer and Detwieler; Trudeau, who fathered the sanatorium movement in this country; Hermann M. Biggs, Commissioner of Health of New York, who first made tuberculosis a reportable disease—voluntary in 1893 and compulsory in 1897; Forlanini, who stimulated the clinical use of artificial pneumothorax and thus demonstrated the value of collapse therapy; and many others who have improved the management of tuberculous patients by the development of individual procedures, the building of institutions, and the propounding of better control measures.

We should also appreciate the improvement noted in the constitutional resistance of individuals in this country, which has resulted from the following factors:

1. An improved knowledge of dietetic habits, particularly as they refer to the basic food components, proteins, fats and carbohydrates, and our augmented knowledge of vitamins and mineral salts.

2. Recognition of the importance of adequate and proper housing.

3. A better realization of the necessity for avoiding mental and physical fatigue, and the importance of a happy outlook.

Tuberculosis in the aged is today frequently mentioned as a problem. I have mentioned the lessening incidence of infection in our youth, but we also see many reports concerning the frequency of tuberculosis in those above fifty years of age. We must not forget that the age group of fifty years and over belonged to the youth of those years when tuberculous infection was manifested in every inhabitant of our country. We should also remember that with increased longevity at this time, fifty-nine years being the average in this country, new pathological entities occupy the forefront of the mortality tables. Leading the procession today are heart disease, blood vessel and kidney conditions, diabetes and other metabolic states which call for dietetic alterations—allowing a dormant tubercle to become active in an altered tissue chemistry and tissue reactivity.

What is our remaining problem? We are today confronted by a great international catastrophe, War! We, in our country, have also been called upon to put forth an added physical effort and may ultimately be engulfed in actual warfare itself. Such a situation—with physical fatigue, alterations in diet, changes in our housing situation and the resulting crowding of quarters—can, if it occurs, evidence the changes that were noted in World War I when the mortality from tuberculosis doubled, tripled, and even quadrupled in some of the war-torn areas. This, despite the fact that only fifty per cent of our adult population have a tuberculous infection at this time. If the latter situation does not become an actuality, and we hope that it will not, there is only one hindrance to the rapid extinction of tuberculosis. In mentioning the mortality of forty-five per one hundred thousand, we should also break these mortality figures down into their components. Among the white people of this country the mortality today approximates thirty per one hundred thousand, and there are approximately one hundred thirteen millions in this classification. It is the remaining group, consisting largely of

Negroes, Mexicans and Puerto Ricans (which group totals approximately sixteen millions of our population, and have a mortality from four to eight times as great as do the whites) that brings the average to forty-five per one hundred thousand.

While there has been a decrease in the morbidity and mortality rates of Mexicans and Negroes, it has not run apace with the decrease in our white population. Most of this excess mortality is lodged in our southern and southwestern states and in some of the large industrial centers of the North. Its existence can be laid at the door of the public officials who have failed to recognize and appreciate the importance of giving adequate care to these groups of our nationals so that they, too, might be freed from the dreaded disease which is no longer known in our country as the white plague.

Better housing, less congestion, education in the value of improved food habits, and adequate institutions for the actual treatment of the disease will remedy the situation. With this attention, in another decade, or fifteen years at the most, the decline in mortality should make tuberculosis an inconsequential disease in our country.

What should we in organized medicine consider so as to effect a state wherein tuberculosis is no longer a disease of serious consideration?

1. *Prevention.* Vaccination by inoculation has interested tuberculosis research workers for years. At first dead bacilli were used, later live virulent organisms, and in more recent years attenuated live organisms, such as B.C.G., the Bacillus Calmette-Guerin. We must remember that bodies or substances immune to tuberculous infection or disease have never been demonstrated; that the only supposed protective mechanism is the specific sensitization to tuberculous infection implanted, intentionally or accidentally, in the human host; and that the causation of disease, where such sensitization has occurred in the presence of re-infection or secondary infection, is dependent on the degree of sensitization and the number and virulence of the secondary infecting tubercle bacilli. This allows for either the localization of these new invading organisms and their subsidence or the occurrence of serious destructive lesions. Inasmuch as sensitization cannot be made constant, the number and virulence of the secondary infection, tubercle bacilli, which are met on the highways of life cannot be determined, and inasmuch as we have not as yet seen nor heard of any evidence that could point to the limitation of sensitization through inoculation by vaccination which might guarantee definite localization of disease when re-infection takes place, we have refrained from recommending this method of tuberculosis prevention.

2. *Case-finding.* It is still most important that we discover all of the tuberculosis cases present in this country. The simplest procedure is utilization of tuberculin tests and chest roentgen films in cases with positive reactions. When the tuberculin is potent and a satisfactory dosage is used and properly applied intradermally, very few false negative reactions are seen, and these all have a definite basis which can be determined. The x-ray film of the chest, when properly taken and read, will delineate with a greater degree of accuracy the presence and extent of lung pathology than any other method we have at our disposal.

3. *Specific therapy.* Experimentation has been made in the past two years with some of the newer and less toxic compounds in the sulfonamide group. It is hoped that the bactericidal substance present in combination with the dye will, through chemotaxis and cellular affinity, penetrate and destroy the tubercle bacillus. Unfortunately, the pathology in tuberculosis, with the thrombosis of blood vessels at the periphery of the tuberculous lesion and lack of continuity into the caseous center, makes such therapy difficult. Thus far there has been demonstrated, with the use of these compounds, an inhibition to the growth of tubercle bacilli, and a limitation of pathologic spread has been noted. At this time this form of therapy holds forth best promise as a specific in the destruction of the infective agent, in vivo.

4. *A continuance of our present methods of management.*

a. There should be a continuation in the supervision of the tuberculous, which requires that all cases be reported to the public health authorities.

b. Persistence in the usual therapeutic regime of rest; diet which is well balanced as to proteins, fats, carbohydrates, mineral salts and vitamins; and fresh air.

c. Surgical collapse procedures. Artificial pneumothorax continues to stand out as the single most effective method of collapse therapy and should be used in every instance where parenchymal destruction is evident. Its application can be applied more extensively in association with intrapleural pneumonolysis when adhesions prevent an adequate collapse. The development of many new selective and local surgical collapse procedures has allowed for a lessening of the number of complete thoracoplasties, but the latter procedure, when indicated, is as yet an important life-saving operative procedure and should not be left as a last resort. Local methods to aid in cavity collapse are: extrapleural packs, paraffin, rubber, tissue-substance as fascia, extrapleural pneumothorax, the Monaldi cavity aspiration, and partial or complete thorocoplasty.

Finally, in the opening statement of this paper a brief interval was taken to discuss the present-day thought among the masses of people as it reflects on organized medicine. I would ask: Where in any of the countries which originally had the same mode of medical practice which we have here, and which have undergone socialization or been subjugated by the state, can one find the progress and benefits that have accrued to the public as they have in our country? Where has there been an increase

in longevity to equal ours, and where has there been such a decrease in morbidity and mortality?

It is our privilege and our duty in this age to maintain active vigilance and combat; to keep this heritage not only for our profession but for the people who are dependent upon it for adequate medical care; and to enable them to enjoy some of the peace and happiness which we trust will always be our lot.

58 E. Washington St.

CARCINOMA OF THE PROSTATE—NEW METHODS OF MANAGEMENT AND TREATMENT*

JAMES F. BALCH
INDIANAPOLIS

Carcinoma of the prostate is the cause of death of thousands of men each year in the United States, to say nothing of the intense suffering which accompanies this disease.

The most disturbing thing about the whole matter is the fact that we have not been able to offer this group of patients any more than possible temporary relief from bladder neck obstruction, with the end result always the same, namely, many weeks and often months of suffering, finally rewarded by everlasting rest. With the possible exception of a very unusual and isolated case, death has resulted in one hundred per cent of these individuals.

Heretofore we have used suprapubic cystotomy or transurethral prostatic resection to relieve the obstruction, x-ray and radium to relieve pain and possibly retard the rapid growth and extension of the malignant process, and occasionally radical perineal prostatectomy, with the hope of totally removing all malignant tissue. Despite all measures employed I have yet to see a case of carcinoma of the prostate that did not eventually succumb to the disease.

In recent months there have been developments which lend encouragement and may offer some hope for this group of seemingly hopeless cases. I shall attempt to unfold this very interesting picture from the histopathological viewpoint and shall try to dovetail the effects of castration on prostatic carcinoma.

A malignant prostatic tumor has been shown to be an overgrowth of adult epithelial cells, and when androgenic hormones are reduced or eliminated these cells undergo atrophy. The workers who produced the evidence showing that prostatic carcinoma is often composed of the adult type of epithelium did so by study of tissue with respect to phosphatase, with the greatest activation at *p*H. 5. Kutscher and Wolbergs[1] showed that this enzyme was present to a larger extent in the normal prostates than in any other organ of the adult man or monkey.

Gutman and Gutman[2] found this enzyme to be low during infancy and that it reached higher levels at puberty and adulthood. In another piece of work[3] they reported that traces of this enzyme found in immature monkeys was markedly increased by injections of androgen but not by the administration of estrogen.

Gutman, Spraul and Gutman[4] also found that "acid" phosphatase was markedly increased at the site of osteoplastic metastases of the prostate. Gutman and Gutman,[5] Barringer and Woodward,[6] Woodward and Higginbotham,[7] and Huggins and Hodges[8] have all shown that men with prostatic cancer with bony metastases have a much higher acid phosphatase level than normal men. Any constant increase in acid phosphatase level is thought to indicate an increase in metastases.

Huggins[9, 10, 11] and his workers deserve a great

---

* Read before the Indianapolis Medical Society, Indianapolis, November 11, 1941.

[1] Kutscher, W., and Wolbergs, H.: Prostataphosphatase, *Ztschr. f. Physiol. Chem.* **236**:237, 1935.

[2] Gutman, A. B., and Gutman, E. B.: "Acid" Phosphatase and Functional Activity of the Prostate (man) and Preputial Glands (Rat), *Proc. Soc. Exper. Biol. and Med.* **39**:529 (Dec.) 1938.

[3] Gutman, A. B., and Gutman, E. B.: Adult Phosphatase Levels in Prepubertal Rhesus Prostate Tissue after Testosterone Proprionate, *Proc. Soc. Exper. Biol. & Med.* **41**:277 (May) 1939.

[4] Gutman, E. B.; Sproul, E. E., and Gutman, A. B: Significance of Increased Phosphatase Activity of Bone at the Site of Osteoplastic Metastases Secondary to Carcinoma of the Prostate Gland, *Amer. Jour. Cancer,* **28**:485 (Nov.) 1936.

[5] Gutman, A. B., and Gutman, E. B.: An "Acid" Phosphatase Occurring in the Serum of Patients with Metastasizing Carcinoma of the Prostate Gland, *Jour. Clin. Investigation.* **17**:473 (July) 1938.

[6] Barringer, B. S., and Woodward, H. Q.: Prostatic Carcinoma with Extensive Intraprostatic Calcification, *Trans. Amer. Assn. Genito-Urin. Surgeons.* **31**:363 (May) 1938.

[7] Woodward, H. Q., and Higginbotham, N. L.: Serum and Tissue Phosphatase Determinations, *Jour. A.M.A.* **116**:621 (April 12) 1941.

[8] Huggins, C. B., and Hodges, C. V.: Studies on Prostatic Cancer: I. The Effect of Castration, of Estrogen and of Androgen Injection on Serum Phosphastases in Metastatic Carcinoma of the Prostate, *Cancer Research* **1**:293 (April) 1941.

[9] Huggins, C. B., and Stevens, R. E.: The Effect of Castration on Benign Hypertrophy of the Prostate in Man. *Jour. of Urol.* **43**:705 (May) 1940.

[10] Huggins, C. B., and Clark, P. J.: Quantitative Studies on Prostatic Secretion: II. The Effect of Castration and of Estrogen Injections on the Normal and on the

deal of credit for their clinical application of the above work. After investigating the effect of castration on benign hyperplasia of the prostate, which was also done by White[12] as early as 1893, and Cabot,[13] in 1896, they also found that epithelial atrophy of the gland was definite as early as three months after bilateral orchidectomy. Going a step further, they castrated over twenty patients with advanced carcinoma of the prostate, many of whom were moribund and had skeletal mestastases.

The clinical improvement in this group of mortally sick men was amazing. With the exception of three cases dying later of circulatory accidents and one dying of advanced cancer, in all of the other cases there has been a gain in weight, the red cell count has shown an increase, the pain was promptly relieved, x-ray pictures showed definite improvement of skeletal metastases, and most important of all, the frozen nodular prostatic glands have shown rapid regression in size and eventually have become soft and atrophic.

Our personal experience in the treatment of carcinoma of the prostate has been similarly gratifying:

Case 1. Mr. L. H., aged 76, came to our office complaining of loss of weight, severe backache, sciatica, and marked frequency and burning on urination. Examination and study revealed a carcinoma of the prostate, with extensive skeletal metastases to the entire bony pelvis and lumbar spine. The growth had as yet caused little bladder neck obstruction, and the patient carried only one-half ounce of clear residual urine. Bilateral orchidectomy was done on August 16, 1941. The patient made an uneventful recovery and has since shown marked improvement. He has gained weight, all pain has ceased, and to our amazement the frozen, stony hard, nodular prostate had shown definite signs of softening and regression one month postoperatively.

Case 2. Mr. J. L., aged 72, first reported to us in 1937, with a history of a complete urinary retention. On rectal examination his prostate was found to be typically malignant. Prostatic resection was done on November 26, 1937, and recovery was uneventful. The pathologist reported adenocarcinoma of the prostate. This man did very well, and was able to empty his bladder for fourteen months. Another episode of urinary retention necessitated a second prostatic resection, which tissue also was reported as being an adeno-carcinoma. Following that he did very well until February, 1941, when he began to lose weight, had increased difficulty in voiding, and during the following six months he failed very rapidly. The residual urine increased to twenty-five ounces and became markedly infected. No skeletal metastases have ever been demonstrated.

Bilateral orchidectomy was done August 20, 1941, and in one week the man was able to completely empty his bladder, although the bladder neck had never been touched. This denotes the rapid regression of the large nodular prostatic growth.

Today, two months postoperatively, the palpating finger would never recognize nor could one believe that such a marked change could occur in an extensive prostatic cancer in such a short time as sixty days. The gland has reduced at least fifty per cent in size and is greatly softened.

I do not propose to be over enthusiastic about this matter, because obviously the final word has yet to be written. Both Huggins' cases and particularly our cases are yet too new to draw definite conclusions.

Castration may be accomplished in three different ways:

(1) With the use of x-ray or radium.
(2) By the administration of an estrogen.
(3) By means of surgery.

At the last meeting of the American Urological Association, held at Colorado Springs, Colorado, Dr. Arbor D. Munger, of Lincoln, Nebraska, read a paper entitled "Certain Experiences with Irradiation of the Testicles in Prostatic Carcinoma." He found in a certain percentage of the cases that retrogression or stabilization of the growth of the lesion had apparently taken place.

During the past several months the administration of estrogenic substances has been used by various men in treating carcinoma of the prostate. The powerful, and I might say dangerous if not carefully managed, synthetic estrogen known as stilbestrol has proved to be of great benefit.

The patients receiving stilbestrol have gained in weight, have shown definite atrophy and shrinkage of the prostatic tumor, and have responded markedly from the standpoint of relief of metastatic pain. This drug must be used with great caution, for it is very toxic and the effects, such as severe nausea and vomiting, complete testicular atrophy, painful swelling of the breasts, and possible cirrhosis of the liver must be considered.

My own personal experience with this drug is so limited that I hesitate to draw any conclusions, but from reports received through personal communication with other physicians, it seems very likely that we do not gain the same rapid and lasting effect from the use of stilbestrol as is accomplished by bilateral orchidectomy. However, time will tell, and we seem at any rate to be on the right track in helping this group of men who have heretofore been doomed to their graves.

In closing, I wish to sound a note of warning. Before considering any form of treatment such as

---

Hyperplastic Prostate Gland of Dogs, *Jour. Exper. Med.* **72**:747 (Dec.) 1940.

[11] Huggins, C. B.; Stevens, R. E., and Hodges, C. V.: Studies on Prostatic Cancer. The Effects of Castration on Advanced Carcinoma of the Prostate Gland, *Arch. of Surg.* **43**:209 (Aug.) 1941.

[12] White, J. W: The Present Position of the Surgery of the Hypertrophied Prostate, *Annals Surg.* **18**:152 (July) 1893.

[13] Cabot, A. T.: The Question of Castration for Enlarged Prostate, *Annals Surg.* **24**:265 (July) 1896.

has been mentioned in this paper, we must legally protect ourselves from every standpoint. Many juries have been known to show no mercy on a doctor being sued for having castrated a patient.

We must not forget that whether we use x-ray or radium, stilbestrol (which actually produces a chemical castration) or surgically remove both testicles, the patient will be a castrate.

We should be absolutely positive of our diagnosis, and should require the patient and his wife, or some immediate relative, to sign a statement which not only explains the situation but also gives permission to carry out whatever form of therapy may be proposed in the given case.

709 Hume Mansur Bldg.

YOUTH HEALTH AND DEMOCRACY*

ROSCOE L. SENSENICH, M.D.
SOUTH BEND

Goethe said, "The destiny of any nation, at any given time, depends upon the opinions of its young men of five and twenty." As of today it might be added, "and upon the opinions of young women of the same age group." To that statement I subscribe. These youths may not be known as immediate makers of destiny and their opinions may not be accepted as guides to progress—but the processes of thinking, methods of judging, and patterns of conduct developed during this age will ultimately characterize the activities of those individuals who will determine the destiny of the nation. To some older heads this is an awesome statement, "determiners of destiny,"—these, our children, whose early steps we have guided and whose later mistakes we will judge generously or react to irritably in proportion to their agitation of our pet prejudices. You who would be frightened at the prospect of this group of future world makers, calm yourselves. If it was true in Goethe's time, and is still true today, that the youth of one day molds the times and makes the history of the day after, you, despite your present conceit, must have established the foundations of your present thinking during the same period of your lives.

Should we be concerned as to whether we have done all that we might have done in preparing our children for the responsibilities which they must assume? In addition to that most valuable of all contributions to character building—home training—an inventory of the more formal training of school reveals that this class of more than four hundred fifty graduates represents collectively more than six thousand school years. During these years the teachers, trained in the ways of presenting facts of history, science and language, have endeavored to instil these facts into minds which have exhibited variable degrees of interest and willingness to accept educational training.

Much controversy exists as to whether education should be for cultural enrichment of life, for training preparatory to a specific vocation, or more generally for developing broader capabilities and training the individual to think, judge, and act upon his own decisions in such matters as may confront him. We accept all of these as the purposes of education. Any controversy concerning the plan which should supersede in the brief years of formal education offered the student is a problem for professional educators to decide.

These educational technics have been discussed only for the purpose of pointing out that much of the purely academic work of the school omits the background of the subject I am to discuss, namely, Youth Health and Its Relation to Democracy. History, science and language present information and technics. Health and democracy represent ways of living, patterns of personal care and conduct, and interpersonal relations with others with whom we share certain common interests. Is this part of our school curricula the best possible? Do we teach health in its practical application as a way of life offering great rewards? And do we teach the individual student to evaluate objectively the things in his interpersonal relationships which must be recognized as basic fundamentals in a democracy? Is the way of living which I have described emphasized so as to be acquired by planning, or is it assumed that it will develop, if at all, as a personal and more or less accidental inclination? Is good health pointed out to youth in a positive and objective manner as something of great value to be sought as a necessary basis for great accomplishment, or is only bad health emphasized as something to be avoided if possible, without too much anxiety, but which may or may not come upon the individual as a matter of mere luck?

Some information as to the health conditions of men under thirty is being obtained in the Selective Service examinations. It is interesting to note that the most frequent cause for rejection is dental deficiency. Various reasons have been advanced. Nutrition, especially vitamin deficiencies, may be a factor, and nutrition is now becoming a matter of national interest in planning for national defense. Some have pointed out that the present registrants

* Presented at the seventy-third commencement of the Battle Creek Public Schools, held in the W. K. Kellogg Auditorium at Battle Creek, Michigan, on June 19, 1941.

were babies during World War I. It is admitted that our present knowledge concerning vitamins was not available at that time; however, such deficiencies in diet as may have existed were due either to ignorance as to needs or were due to carelessness, for there were no important food restrictions in this country during that time. An interesting sidelight is presented by some dentists who doubt that dental deficiencies exist to the same degree among women who were born during the same period and who had the same diet as the men now being examined. These professional men state that women are generally more careful in their dental hygiene than men and, although they come from the same or less fortunate economic group, they visit the dentists more often. Dental findings among draftees often suggest neglect. Certainly, this most frequent cause for rejection points to a major educational problem.

Many of the other causes for rejection of draftees have been known by the registrant to have existed for a long time, could readily be remedied surgically without serious risk, are within the financial ability of the registrant, and should be corrected. Failure to have the condition properly cared for can be explained only on a basis of failure on the part of the individual to meet his problem in a sensible manner or insufficient interest in his personal health. Less frequent causes for rejection involve sexual diseases. A more wholesome view of life and worthwhile recreational activities might to a large extent reduce this cause of impairment of otherwise useful citizens.

Different standards are being used, and they are being applied more strictly in the selection of men for military training now than were used in 1917 and 1918. Only the best men are being selected for training, and none are being accepted with the idea of receiving treatment by the government while in training, as was done in 1917 and 1918.

Do not be led into the belief that the general level of health of our youth is lower than it was at the time of World War I. An evaluation of all the factors entering into the operation of Selective Service would not justify any such conclusion, although it has sometimes been so presented, nor are the major number of rejections due to failure of the medical profession to provide care. Bear in mind that disqualifications because of mental and nervous conditions, disqualifications involving sexual diseases or moral reasons, and capitalization of remediable defects for the purpose of securing deferments involve factors other than medical care and should be so recognized. Disqualifications caused by neglect of dental hygiene, or other easily remediable conditions for which medical facilities are available, require educational efforts. Statistics, especially, should not be distorted in an effort to force the public into a regimented system of socialized medicine. These statements are not intended in any way to reflect unfavorably upon those loyal and upstanding youths who are deferred because of impairments which they could not prevent and cannot now correct. Any consideration of youth health should include mental health as well as physical health, and often subnormal physical and mental health are inter-related and are results of the same causes.

Figures recently published indicate that mental and nervous diseases are the most frequent causes for rejection at the induction centers. We admit that the individual with subnormal mentality since birth could not remove that disability; however, some greater effort to prevent marriage of defectives would aid in diminishing this problem. A more intelligent approach in the matter of mental training in the home and school would be productive of incalculable rewards in happiness to the individuals concerned, would lessen stress and unhappiness to innocent contacts, and would effect tremendous financial savings in the lessened costs of institutional care incurred as a result of offenses against society.

Mental hygiene as well as physical hygiene should be taught in the schools. A normal mental stature and personality should be pointed out as being of as great importance as a normal physical body. Children should be taught to face facts and problems intelligently, honestly and courageously. They should be taught the importance of a wholesome viewpoint toward life, and the importance of making the necessary adjustments in their environment without resorting to abnormal neurotic reactions. Time will not permit a lengthy discussion as to the causes of physical and mental impairment, and these examples were mentioned briefly as some of the common types of impaired health, physical and mental, which obviously are the result of personal failure to view health matters properly. Even such apparently simple matters as proper food, exercise and rest, which may mean the difference between good health and its effectiveness and bad health and its ineffectiveness are often neglected by the youthful group herein discussed.

Tremendous progress has been made in the prevention of disease. In fact, our present civilization would not exist were it not for the advances made in medical knowledge, which make better living and longer life possible. Better observance by the individual regarding known measures in the prevention and early treatment of disease would probably make additional advances in health comparable to the results obtained in the prevention of disease by measures directed to the health of the public as a whole. The individual must, however, be taught to become interested in the use of these measures of proved value. Facilities are now available and within reach economically, if use is made of them. No nation on earth has ever enjoyed as high a general level of life as that now made possible to the people of the United States. However, health education is needed, and improved health facilities must be established in certain geographic areas where a combination of ignorance and poverty have

prevented the full measure of health attainment reached in areas not so handicapped. Measures for the eradication of syphilis have been in operation for a much longer time in the Scandinavian countries, hence the disease has a very low incidence there. However, there is also a low incidence among the people in the United States who live under similar conditions. To get a clear picture it is necessary to consider the low incidence of syphilis in your own community, as revealed in premarital and other examinations, compared with the very high incidence reported in some geographic areas among other races. Progress is being made in those other areas.

The low incidence of general illness reported from the Scandinavian countries prior to the present war led to a comparison of the incidence of illness among Scandinavians living under similar conditions in rural and small village concentrations here in the United States. The amazing features were that the Scandinavian groups in this country enjoyed as high, and even higher levels, of health than similar groups in their home country. This suggests that the general level of health may be due to a more sturdy stock, uncrossed by other groups, and a general observance of healthful habits of living rather than any governmental regulation. A similar comparison of favorable health conditions may also be made with New Zealand, which reports a low incidence of disease but excludes from its statistics aboriginal and other groups.

It may be said without successful contradiction that no nation on earth has a higher general level of health than the United States when comparisons are made on the above mentioned basis. No other nation has a medical service equal to that available in the United States, whether it be for the prevention of illness or for the scientific treatment of disease. The average age attained by men in the United States now exceeds sixty years, and among women it approximates sixty-two years. Much of this extension of the average life has resulted from the saving of babies and the elimination of infectious diseases which in earlier times would have prevented many of these fine graduates who are before us tonight from having attained their present age. We must now turn to this youthful group who will continue the fight for health advances.

Improvement in general levels of health from this time on will be accomplished by better education in health matters and by inculcation of better habits of living. This improvement may equal the progress made as a result of the development of new discoveries in medicine, amazing as these advances are from day to day. In short, education is needed in furthering the prevention of disease, in applying more effectively the measures which have proved valuable in treatment, and in utilizing to the greatest extent all existing facilities for the care of the sick. Political regimentation of medical care will not improve that situation. The areas which do not now have the needed health facilities can be supplied in a relatively short time if communities are educated to use these measures.

Man's inventive ingenuity in building labor-saving machines has for the present outstripped his capacity and training for intelligent employment of the time thus saved for his personal enjoyment. However, this will not be for long. By giving generally higher levels of education and by developing interests and tastes for better recreational activities, this condition will be gradually corrected. Educational institutions, labor unions, and mutual, fraternal and other group organizations should give encouragement to planning, and should provide means for the more intelligent utilization of the newly-saved leisure time. Earlier I stated that health and democracy are both based upon a way of living, personal and inter-personal. As a way of living, both health and democracy are worthy of a major rank in many programs of youth education. Attitudes, emotional reactions and various abilities are molded in such a manner as the home and school effects them. The product of this training is the personality of this man and this woman, now under twenty-five, who will eventually help to influence the interests and activities of the democratic society of which they are a part. Democracy, however, brings obligations to these individuals, as well as assures them of certain rights. If they are then to fulfil their whole obligation to the Democratic State, they must be able to appreciate these duties and to comprehend the rights of others. This requires normal well-rounded personalities, intellectually, emotionally and morally. To meet this requirement a certain measure of mental and physical health is necessary. Democracy is not a fixed state, but is an ever-moving stream of personal and inter-personal activities in which certain rights and freedoms for self-development of each individual must be constantly defended.

Democracy, then, is at no time perfect but may be improved as the individual members of that society develop their ability to live in a better democracy. The youth of today will live in the midst of danger, spiritually, psychologically, physically and socially, but this is no excuse for being careless in the development of their health habits, morals, and their capacity for betterment. It will take this younger generation a lifetime to extract our civilization, and such democratic principles as may be salvaged, from the chaos into which the present generation has fallen. Youth cannot afford to indulge in muddle-headed efforts, but must be mentally alert in their thinking and acting.

In the days which we are now entering, our nation will marshal men and material to the utmost of its resources for the preservation of our democracy. Our democracy will be what we make it. It may be empty or it may be something to be valued—not only to be defended, but to be made better than any that has ever existed. It may be made everything that honesty of purpose, mutual effort and faith can produce, thus protecting in the great-

est measure the individual's dignity, his life and freedom from regimentation in matters spiritual, social and physical. Democracy thus becomes something for which youthful energy must strive in the light of faith, with unfailing zeal in the confidence of making an even better democracy.

REGIONAL ILEITIS*

HAWTHORNE C. WALLACE, M.D.
CRAWFORDSVILLE

Nonspecific inflammations of the ileum have long been recognized but interest has been general only since 1932 when Crohn, Ginzberg and Oppenheimer[1] described a disease which they called regional ileitis. Previously, descriptions of this disease had been found only under the name of granuloma of the intestine, infective granuloma, and in European literature as phlegmons of the intestine. The disease had been confused with foreign body tumors, trauma of mesentery with granulomatous reactions, Hodgkin's disease, etc.

The disease was not new. In 1806, Charles Combe and William Saunders[2] reported before the Royal College of Physicians of London a fatal case of terminal ileitis, and their description of the pathology is typical of this disease. In 1826, John Abercrombie[3] reported an undoubted case with postmortem findings. Moschowitz and Wilensky,[4] in 1923 and 1927, described these lesions, grouping them under granulomas. They insisted that the thickenings were neither tumors nor specific inflammations, but that some grade of bacteria of low virulence must be the cause.

But it remained for Crohn, Ginzberg and Oppenheimer[5] to first isolate and describe this disease accurately. They first described the disease as affecting only the terminal ileum. It is characterized by a chronic cicatrizing inflammation and associated with ulcerations in the mucosa, and marked fibrosis with narrowing of the lumen. They believed that the oldest lesion was just oral to the ileocecal and that the disease progressed orally. Later they modified their views in conformity to that of other men and agreed that the colon and other parts of the small bowel could be involved.

The clinical course of this disease is prolonged. Upon presentation patients have generally been ill from several months to two or three years. They complain of pain in the lower abdomen, diarrhea, and loss of weight and strength. Their appetite is poor, fever is present in many cases but is rarely high, and long periods of apyrexia are interspersed. The diarrhea is usually outstanding, and there are two to four loose stools daily—sometimes blood—always mucus—but tenesmus is lacking. When the stenotic factor is predominant there is constipation and sometimes vomiting. Pain over the lower abdomen is common; it is dull and cramplike and is relieved by defecation. About thirty per cent of the patients have a palpable mass. Crohn and his associates divided the clinical course into four stages. The first stage presents the signs of acute intra-abdominal inflammation. It is often impossible to distinguish this from acute appendicitis except that the course is somewhat slower. Sometimes a mass is present, consisting of greatly thickened terminal ileum with marked edema of tissues. The mesentery is thickened, and hypertrophic mesenteric glands are present. The appendix may show periappendicitis. Many of these cases undergo resolution, or they may enter the second stage of ulcerative enteritis. Here the predominant symptom is diarrhea. The stools contain pus, mucus, and often blood. Fever may be present and there is often a marked anemia. This stage passes gradually to the stenotic phase, with all the signs of a subacute incomplete obstruction of the small intestine. Violent cramps, vomiting and constipation are outstanding features of this stage. The final development is that of fistula. Many of the patients in this stage have had previous appendectomies, and a persistent fistula following an appendectomy in which the wound has previously healed is very suspicious and should lead to the consideration of the possibility of regional ileitis. These fistulae may also be internal, communicating with other portions of the bowel or with the urinary bladder.

The acute stage deserves some special mention. Many of these seem to resolve without further progression. We have all at times entered an abdomen with a diagnosis of acute appendicitis only to find the appendix normal, or merely the serosal coat injected. The terminal ileum may be thickened

---

* Presented before the Section on Surgery of the Indiana State Medical Association at Indianapolis, September 24, 1941.

[1] Crohn, B. B.; Ginzberg, Leon, and Oppenheimer, G. D.: Regional Ileitis—A Pathological and Clinical Entity, *J.A.M.A.* **99**:1323, (Oct. 15), 1932.

[2] Combe, Charles, and Saunders, William: (quoted by Goldstein, H. I.) Regional Ileitis, *New Eng. J. Med.* **217** 40, 1937.

[3] Abercombie, J.: (quoted by Goldstein, H. I.) Regional Ileitis, *New Eng. J. Med.* **217**:40, 1937.

[4] Moschowitz, E., and Wilensky, A.: *Am. J. Med. Sc.* **166**:48, 1923; **173**:374, 1927.

[5] Crohn, B. B., S. G., and O.: IXVIII, 314, (Feb. 15) 1939.

for some distance, and the mesentery thickened as well, with many hypertrophied glands. We remove the appendix and close the abdomen, and there is no further trouble. Is this the acute stage of the disease known to us as terminal ileitis? William E. Ladd[6] says that acute and chronic phases should not be classed in the same disease. The chronic type should be grouped under the name of granuloma or chronic ileitis, whereas the acute type should be classified as acute ileitis. To group them all under the name of regional ileitis seems confusing to him. This view may be correct.

The primary lesions are apparently oval mucosal ulcerations on the mesenteric border of the small bowel and lying in the long axis. Normal intestinal folds are broken up and blunted. Submucosal, and to a lesser degree the muscular, coats have inflammatory hyperplastic changes. The wall becomes enormously thickened and the lumen narrowed. The involved loop feels like a hose. The segment above may or may not be dilated. The condition frequently begins abruptly at the ileocecal valve and tapers off as it ascends the ileum. In the older stages of disease the mucosa appears atrophic. The mesentery is greatly thickened and fibrotic, and the mesenteric lymph nodes are frequently enlarged. Perforation into the peritoneal cavity is rare but often occurs into other portions of the bowel, such as the sigmoid or cecum. The microscopic pathology is that of a subacute or chronic inflammation. In the early stages the lesion is diffuse, involving mainly the submucosa and mucosa. In later stages the inflammation is more focal in character and may in the serosa resemble tuberculosis. Some cases have large giant cells. It has been stated that these large giant cells are foreign body cells caused by the inclusion of small particles of vegetable matter, which have entered the lymphatics and become encapsulated. In many cases the cecum becomes involved in the same sort of process. The main brunt falls on the terminal segment of the ileum, but any portion of the ileum or jejunum may be involved. There are at times so-called "skip" areas of normal bowel intervening between areas of diseased bowel. This fact may explain some of the recurrences, for one may thus easily fail to remove all the pathology.

The etiology is obscure. No racial distribution has been noted. It has been reported from many countries: United States, Canada, Great Britain, Germany, Holland and Belgium. It is a disease of young adults. Jellen,[7] in fifty cases at the Mount Sinai Hospital, New York, found the average age to be twenty-four years, whereas Crohn[5] in 110 cases found more between the ages of twenty and thirty than all ages combined. The predominance is in males, about 3 to 2. The general consensus is that the disease is bacterial in origin.

There have been several reports of the isolation of a Streptococcus from the involved glands and from the mucosa.[8] The dysentery bacillus was found in one case by Jaffe. J. Felsen[9,10] believes the disease to be a manifestation of bacillary dysentery. Koster[11] thought the disease might resemble lymphogranuloma inguinalis but he applied the Frei test to six cases with uniformly negative results. W. J. Mayo suggested the causal organism to be a variant of the tubercle bacillus, but this theory can not be sustained. There is a variant of the tubercle bacillus which produces a disease of cattle known as Johne's disease. The lesions resemble that of regional ileitis, except for the presence of numerous acid-fast bacilli. However, cattle so affected will react, with a rise in temperature, to a subcutaneous injection of a filtrate of avian tubercle bacilli, but human beings affected with regional ileitis have never been found to so react. The serology is negative. Reichert and Mathes[12] injected irritating material into mesenteric and subseral lymphatics and produced a chronic lymphedema of the intestinal wall, which in some respects resembles regional ileitis. Crohn believes that there is very little evidence to support this view, yet many authors mention the relationship between mesenteric adenitis and terminal ileitis, and suggest that both lesions may be due to a disease of the lymphatics in the area involved.[13,14] In considering nonspecific granuloma, Senn believed that there was first a mechanical interference in blood supply causing a necrosis of tissue, giving a low grade infection, and then the regenerative process gets the upper hand. The appendix is no part of the cause, most observers agree. An attempt has been made to reproduce the disease by injecting macerated tissue from lymph nodes and serosa of ileum into animals, but no disease has been so produced.[15]

The diagnosis rests on the history as outlined above, and when, in connection with this history, there is a palpable mass one must be suspicious of a regional ileitis in a young adult. The x-ray is most helpful. Because of the resemblance to

[6] Ladd, Wm. E.: Discussion of Homan's, J and Hass', G. M. article on Regional Ileitis—A Clinical, not a Pathological Entity. *New Eng. J. Med.* CCIX, 1315, (Dec. 28, 1933).

[7] Jellen, J.: Regional Ileitis, A Review of Fifty Cases, *Am. J. Roentgenology* XXXVII, 170, (Feb.) 1937.

[8] Mixter, Chas. G.: Regional Ileitis, *Annals of Surgery*, CII, 674, (Oct.) 1935.

[9] Felsen, J.: *Am. J. Digestive Diseases & Nutrition* **1**:782, 1935.

[10] Felsen, J.: The Relationship of Bacillary Dysentery to Distal Ileitis, Chronic Ulcerative Colitis & Non-specific Intestinal Granuloma, *Annals Int. Med.* **645**:669, (Nov.) 1936.

[11] Koster, et al.: Regional Ileitis, *Archives of Surgery* **32**:789, 1936.

[12] Reichert, F. L. and Mathes, M. E.: *Annals of Surgery* **104**:601, 1936.

[13] Jackson, A. S.: Regional Enteritis, *S. G. & O.* **65**:1-10, 1937.

[14] Bargen, J. A and Dixon, C. F.: Regional Ileitis, *Proc. Staff Meetings Mayo Clinic* **10**:814-816, 1935.

[15] Homan, J. and Hass, G. M.: *New Eng. J. Med.* **209**:1315, 1933.

ulcerative colitis, a barium enema is first attempted —this is negative. A barium meal discloses distended loops in the terminal ileum, with a delay in motility in the affected area. In four-, six-, and nine-hour observations this delay is present though only in the stenotic phase is the delay striking. In advanced cases the lumen of the involved loops resembles a cotton string, the so-called "string sign" of Kantor.[16] In the differential diagnosis one must consider ulcerative colitis. Here the barium enema and sigmoidoscope will aid. Only rarely does ulcerative colitis involve the terminal ileum. Regional ileitis is nearly always proximal to the valve. Tuberculosis must be considered. Moschowitz and Wilensky do not believe that primary tuberculosis occurs at the ileocecal junction. Crohn states that in a complete survey at Mount Sinai over a period of fifteen years only four cases of primary tuberculosis (intestinal) survived a critical analysis.

However, one should probably exhaust all methods of treatment for tuberculosis before operating for terminal ileitis. Hodgkin's disease may produce such a lesion, and the diagnosis be possible only at operation. Carcinoma may be confused, but the age incidence is different. However, both call for surgical intervention. If the x-ray is negative, other causes of diarrhea must be considered for tropical diarrhea, non-tropical sprue, etc.

The prognosis of this disease is difficult to estimate because of the chronicity, and hence the necessity for long follow-ups. I was able to review 348 cases collected from the literature. These patients were subjected to various operations, some to mere exploration, some to short-circuiting, and some to radical resection. Of these 348 cases, 254 were reported as well at intervals after operation, varying from a few months to many years. Forty-two were not well and 52 died. This is a mortality of 14.9% and a cure of 73% of the cases operated upon. This agrees generally with Crohn's experience, for he reports 15% mortality. Mixter reports 12% mortality. In general, those patients undergoing merely a short-circuiting operation do not progress as well as those undergoing resection (only about 50% are cured), but the operative risk is only 10.5%.

Regarding treatment, some men maintain that medical treatment secures as good results as surgical. The most noted of these is probably Cutler[17] who, in reviewing ten cases, states that all but two showed the disease following surgery after a follow-up period of three years or more. Furthermore, he cites unoperated cases which did as well as the operated. One operation was withheld because of the condition of the patient, yet the patient recovered and was in excellent health four years afterward. The medical treatment consists merely of a bland diet and supportive measures. Most men agree, however, that the condition is a surgical one except in the acute stage. Here conservative treatment is recommended, with merely an exploration to confirm the diagnosis, and possible removal of the appendix. Crohn states that there is no serious objection to short-circuiting, which has a lower risk, if one understands that he has only an even chance of cure. However, he believes that primary resection is best because of the chance of permanent cure. The disadvantage of leaving the pathology in situ is apparent, for there is an ever present danger of the disease progressing upward beyond the anastomosis. (Pemberton reports three cases, in which only a short-circuiting operation was done, that developed a deficiency syndrome with the hematologic posture of primary anemia, and a fourth case in which a deficiency disturbance comparable to the wet type of beriberi developed. Whether these disturbances were related to the ileitis he could not state.) And yet many cases do well with only short-circuiting.

The relative value of one-stage and of two-stage resections is difficult to determine. It would seem that in general the one-stage resection would be better, for the two-stage gives the patient two chances of a surgical death instead of one, yet so many of the chronic cases are complicated by fistulae that often the two-stage procedure is best. Dixon, C. F., states that the two-stage procedure is favored at the Mayo Clinic,[18] whereas Karl Meyer at the Cook County Hospital also favors this method of treatment.[19]

Our experience at the Culver Hospital, in Crawfordsville, has been limited to two cases which we now wish to present for your consideration.

CASE REPORTS

Case No. 1—Patient: Male—aged 26—admitted August 17, 1937.

Present complaint: Abdominal pain and tenderness. Alternating periods of diarrhea and constipation.

History: About four years ago the patient began having attacks of cramp-like pain associated with diarrhea. At times he would have fever but no chills. Then his diarrhea began to alternate with constipation, and his pain became worse. A mass has been noted in the lower abdomen for several months. Weight loss has been progressive, from 140 to 127 pounds.

Physical Examination: Tall sallow youth. Temperature 100° F. Pulse 120. B.P. 110/70. Teeth carious, gums retracted. Heart and lungs negative. Abdomen scaphoid with a palpable mass in right lower quadrant. Tenderness on pressure in right lower quadrant.

[16] Kantor, J. L.: Regional—Terminal Ileitis—Its Roentgen Diagnosis, *J.A.M.A.*, *CIII*:2016, 20-21, (Dec. 29), 1934.

[17] Cutler, E. C.: Cicatrizing Enteritis—A Neglected Clinical Entity, *Proc. Interstate Postgrad. Med. Assembly N. Am.* (Oct.) 1937.

[18] Dixon, C. F.: Regional Enteritis, *Ann. of Surg.* CVIII:857, (Nov.) 1938.

[19] Meyer, K. A. and Rosi, P. A.: Regional Enteritis (Non-specific), *S. G. & O.*, **LXII**:977, (June) 1936.

Laboratory: Urine, clear acid, S.G. 1,023, slight trace of albumin, sugar negative, 2 to 4 W.B.C., occasional R.B.C., and calcium oxalate crystals. Blood: 7,650 W.B.C., 67 Polys., 5 Bands, 27 Lymph., 1 Eosin, 5,180,000 R.B.C., 15.6 gms., Hgb. Type IV.

Management: August 20, 1937, Iliocolostomy. December 4, 1937, Resection of approximately three feet of ileum.

Operative Findings: Large inflammatory mass in pelvis consisting of adherent loops of ileum and mesentery. Wall of involved gut greatly thickened. Mesentery much thickened, with large glands. The process does not involve the colon but extends up the ileum for about three feet, where it again stops abruptly. In one place the involved ileum is adherent to the sigmoid. The rest of the small gut is normal as far as can be ascertained.

Pathological Report: Specimen consists of three feet of ileum. Intestinal wall is greatly thickened and in places the lumen is greatly narrowed. The thickening in some places measures 9 mm. The process has extended through the entire wall of the intestine and is very marked in the subserosal tissue and fat. No tubercles are seen. Diagnosis: Regional ileitis.

Postoperative Course: Uneventful. Discharged December 16, 1937. Gained in weight to 150 pounds. Was entirely well except for occasional loose stools until about August 15, 1941, when he began to have a persistent diarrhea of about six to ten stools daily. In the past two weeks there has been considerable improvement, but he still has two to six stools daily. There is no pain or tenesmus with the stools. When in the office his weight was 140 pounds.

Case No. 2—Patient: White—Male—aged 17—unmarried.

Present History: This morning complained of intense pain in right lower quadrant, with vomiting. Pain is gradually getting worse. August 30, 1940, operated on for acute appendicitis. Appendix was normal but terminal six inches of ileum was enlarged, stiff and adherent to the abdominal wall. The appendix was not removed. Because of previous treatment in Rockville; lesion is thought to be tuberculosis of ileum. Failed to improve on x-ray treatment, and a sinus developed through the McBurney incision. A sinus also developed into the bladder, and patient passed gas through urethra. Patient's condition gradually becoming worse. Because of sinuses the possibility of terminal ileitis is considered and resection advised.

Operative Treatment: November 11, 1940. Preliminary anastomosis around the lesion, followed by transfusion. November 29, 1940, resection and appendectomy, followed by transfusion.

Subsequent Course: Remarkable improvement. Sinuses healed and patient discharged on December 23, 1940.

Laboratory and X-ray: Repeated urinalyses show from trace to 4 plus albumin, many pus cells and red blood cells. November 27, 1940—R.B.C. 3,670,000. Hgb. 11.4 gms. September 11, 1940—Chest negative for tuberculosis. September 15, 1940—X-ray shows narrowing of channel in the terminal six inches of ileum.

DISCUSSION

Dr. B. D. Rosenak (Indianapolis): There is very little that I can add to Dr. Wallace's paper on regional ileitis. I should like to mention again some of the important features of diagnosis in this condition. The clinical picture is by no means typical, that is, it is easy to confuse with other inflammatory lesions of the intestines. I think that a majority of the cases are still diagnosed acute appendicitis, and only at operation is the true situation discovered.

However, if the picture is suggestive of ileitis, or if for any reason the physician or surgeon has reason to suspect this lesion, several things should be done. If there is diarrhea associated with abdominal pain, there is good reason to suspect an inflammatory lesion of the colon or small bowel, and the diagnostic procedures should include a sigmoidoscopic examination, which will show nothing if it is an ulcerative lesion in the ileum and will exclude ulcerative colitis. That should be followed by a barium enema, which in a good many cases will reveal the pathology in the terminal ileum, since the ileocecal valve is often patent and barium can be expressed by manipulation into the terminal ileum. I think at least thirty or forty per cent of the time when the lesion is located in the terminal ileum the diagnosis can be made on barium enema examination.

However, should that examination show a normal colon, one could still not rule out regional ileitis, and the particular technic that is required is a barium meal with frequent observations of the progress of the meal through the small bowel. That requires observations at frequent intervals throughout the day. The normal small bowel should be empty of barium in nine hours, and if there is delay in the small bowel beyond that time, it is suggestive of an obstructive lesion. If there is narrowing at any point, it is indicative of pathology at that point. There also may be dilatation of the loops superior to the site of the lesion, but in minimal cases there may be no narrowing and no proximal dilatation.

In the second stage of the disease before stenosis develops there may be no narrowing and still it is possible to make the x-ray diagnosis, because the normal mucosal pattern of the ileum will be destroyed, and if the fluoroscopist is on the job and sees the barium when it goes through the diseased loop, he will notice the absence of the normal mucosal markings, plus an irregularity of the margins, enough to make him suspicious of an ileal lesion.

The combination of technics that I have men-

tioned should suffice in most cases to make the diagnosis.

Now a word about therapy. There is very little more to be said. I think that at this time this must be considered a surgical disease. The only thing that can be said about medical therapy is that during the acute phase of the disease these people should be on bed rest. They should receive an absolutely bland diet. They should receive a supportive treatment in the form of vitamins, for they are wasting vitamins and other essential elements of nutrition because of diarrhea. Perhaps in the acute phase it might be justifiable to try some form of chemotherapy. I do not know of any success with any of the sulfonamide drugs, but I believe they would be worth a trial. There has been some success in ulcerative colitis, and we have reason to think that these diseases are similar. I, therefore, think that in the acute stage it would be well to try sulfanilamide or related drugs, but if prompt regression did not occur, and it developed into a chronic case, the surgeon should be called in. Certainly the procedure of choice is a two-stage resection. There are reports of regression of the disease following the short-circuiting operation, and inasmuch as nothing would be lost by doing that much of the operation and waiting, I think it is well to do that. Do the short-circuiting operation, and if the individual does well and the symptoms subside, it might be well to let him go at that, but I think the patient as well as the doctor should understand that this is probably only the beginning and should be followed by a complete resection of the diseased segment of the bowel.

Dr. D. F. Cameron (Fort Wayne): I should like to take just a few minutes to report briefly on one patient who had this disease and to emphasize one feature in the etiology that Dr. Wallace mentioned. Briefly, this was a man who is now thirty-five years old, who five years ago had a laparotomy by another doctor who found what he thought was tuberculosis of the cecum. He did not care to resect it, and later sent him to me. I resected the cecum and the terminal ileum and I had no doubt in the world but that it was tuberculosis of the terminal ileum and cecum. The serosa of the terminal ileum was studded with tubercles, there was a mass in the cecum, and he had obstructive symptoms and in general the symptoms that Dr. Wallace has emphasized.

I did a resection of the cecum and terminal six inches of ileum and an end-to-side anastomosis of the ileum into the ascending colon. He was reasonably well for about four years, and a year ago he had a gradual recurrence of his symptoms, especially the obstructive symptoms, and it got so bad that I did another laparotomy. Twenty inches or so of the terminal ileum had the so-called rubber hose appearance, a firm thickened wall with a very small lumen. At that time there was no evidence of anything resembling tubercles. I did a two-stage operation there and anastomosed the ileum above this diseased portion to the transverse colon, and then a few weeks later removed about twenty inches of the ileum.

Now, to my surprise, the pathologist, whom I had not asked to examine the first specimen (I thought surely that it was tuberculosis), said there were giant cells in the tubercles, but he could not find any acid-fast bacteria, and the second specimen, he said, was a non-specific terminal ileitis. The man is doing reasonably well now, but I report it because if he had not had this complication I would have thought it was a cured case of tuberculosis of the cecum, and, indeed, I still believe the primary lesion may have been due to tuberculosis.

ABSTRACTS

ALKALI HELPS REDUCE COMPLICATIONS OF SULFATHIAZOLE

The administration of an alkali, such as sodium bicarbonate, with sulfathiazole, and possibly also with sulfadiazine, two derivatives of sulfanilamide, is advised by Leon Schwartz, M.D.; Harrison F. Flippin, M.D.; John G. Reinhold, Ph.D., and Albert H. Domm, M.D., Philadelphia, in *The Journal of the American Medical Association* for August 16 as a means of decreasing the incidence and number of crystals of these drugs in the urine.

The four men point out that recent medical literature contains many reports of bloody urine, deficient secretion of urine, urinary stones and other complications associated with the use of these drugs. These kidney complications are due, in part if not entirely, to the presence of crystals of these drugs in the urinary tract and some of them necessitate a discontinuance of administration of the drug at a time when treatment is most desired.

To ascertain the effect of alkali on the incidence and number of crystals detected in the urine of patients receiving sulfathiazole or sulfadiazine, the four investigators administered sodium bicarbonate in an amount equal to that of the drug to 37 pneumonia patients and compared the urinary findings with those of 63 pneumonia patients who were not given an alkali. The incidence and number of crystals of the drug found in the urine samples were distinctly less in the group of patients receiving an alkali together with either sulfathiazole or sulfadiazine, particularly with the group receiving an alkali with sulfathiazole.

92 AMERICAN DOCTORS HAVE QUALIFIED FOR SERVICE IN GREAT BRITAIN

A total of 230 applications, up to September 4, had been received by the American Red Cross from physicians wishing to enroll with the Royal Army Medical Corps in response to a British Red Cross request for American physicians, *The Journal of the American Medical Association* for September 13 reports.

"Of these," *The Journal* says, "138 had been found unqualified because of age, lack of citizenship or other similar reasons. Ninety-two have been qualified and 42 have been given passports to Great Britain; the remaining 50 are in process."

THE SEXUAL PROBLEM

MINOR MILLER, M.D.
EVANSVILLE

In the attempt to suppress the venereal diseases much, if not most, of the effort and publicity has been confined to the medical methods of attaining this highly desired result. Unquestionably, the extinction of venereal disease by efficient medical practice is a most laudable undertaking; yet, should we through these measures achieve this goal, will we have cured more than one symptom of the great problem, namely, the maladjustment of human sexual relationship?

Biologically, sexual relations of the male and female of the species are necessary for the propagation of the race. Human offspring require protection, sustenance and training over a long period of time before becoming self-reliant. Sexual desire in the adult human female is not confined to seasons or cycles of sufficient duration to insure that the exigencies attendant to the care of the fruit of one gestation shall have been accomplished before the possible termination of several succeeding gestations.

Early in the development of the human race it became evident that the care of the young demanded some unit be established for this purpose. Mating came to be more than a casual intercourse, and the family was instituted. Rules and order of conduct were evolved to safeguard and protect this intimacy. The custom of marriage gave notice to other members of the community that the parties involved had entered into this contract and served as a warning to others to respect this union. Moral codes were developed dealing with sexual conduct, and, since the spiritual leaders of primitive peoples were usually the civil chiefs as well, the edicts took on a religious pattern. Marriage became a religious institution, and theological laws were promulgated to bolster civil laws to preserve it. Violation of these decrees were frequent, as is attested by the records of religious and profane history.

The Holy Bible relates many transgressions against the sexual integrity of the family. To recall a few—Potiphar's wife and Joseph, and David's little affair with Bathsheba in which we are told of the cunning conspiracy which caused the husband, Uriah, to be slain. David had impregnated the lady, and Uriah had been absent from her bed so long that a pregnancy on her part was certain to arouse suspicions in his breast. Solomon and the Queen of Sheba are credited with indulging in an affair, Menelik resulting in due time. The Ethiopian King of Kings, Haille Selassie, claims direct descent. Many other sexual peccadillos are chronicled in Holy Writ, together with pertinent regulatory statutes and the penalties prescribed. Many of these penalties were death decrees, but violations merrily continued.

Profane history provides interesting tales of the illicit amours of such prominent personages as the beauteous Helen of Troy; Cleopatra, the irresistible; Madame La Pompadour; Anthony; Caesar; Henry VIII; Louis of France, with or without number; the Roman officials, and high dignitaries of the various courts of the kings of Europe. If we lend credence to the contemporary literature of the various times, we are not led to believe that contraband relations of the most intimate nature were confined to those in high places. Indeed, delinquents appear to have been numerous in all classes. Publicly, all classes condemned clandestine romances. Probably the loudest shouting, opposing unlawful *affairs de coeur*, was augmented by many who privately were uncursed by an incorruptible chastity.

Present day conditions do not give us cause to be proud of any improvement in virtuous conduct. The evidence supplied by our numerous unwed mothers; divorce records (in which sexual difficulties play a more important role than the docket records); youthful delinquents whose unrestrained sexual activities cause so many headaches for the attachés of our juvenile courts; the flaunted or clandestine unfaithfulness of too many husbands and wives; the presence of courtesans, whose existence depends upon the demands for their favors, as well as the millions of cases of venereal disease amply proves that there is still a big problem in human sexual relations. Something is surely wrong with this portion of our social structure.

The family unit, as the basis of civilization, has not been changed. It is still adhered to as the preferred pattern in most of the countries on the globe. Experiments have been attempted in communal rearing of the young but have never proved lasting. This is probably due to the fact that the human race is endowed with other instincts more powerful than unrestricted sexual desire. The love of the individual for his or her mate and devotion to the offspring is so strong that such ventures have failed. Citizens of this country have only condemnation for the abolishment of the family, as we are told the Russians practice, and they do not look with favor on the German plan of removing the youth from familial influence at a tender age. These deviations from the family unit did not result from the demand of the populace but were projects instituted to satisfy the ambitions of the rulers.

Given a citizenry that is determined to continue the family institution, any influence that affects it in an adverse manner certainly deserves careful attention. The sexual problems have never received open and honest dealing. Moral, civil and religious laws have given us a system of conduct.

We blithely go our way violating and trampling on this system. The excuse given is that Nature has endowed us with an instinct that is so powerful that we are incapable of resisting the desire, and we are unmindful of the majority who are adhering to the custom most if not all of the time. Individuals whose transgressions are infrequent refute, by the testimony of their own conduct, the contention that the urge is uncontrollable.

Sex is undoubtedly one of the fundamental factors of life, yet nowhere do we have the way charted for us in a comprehensive manner. From earliest infancy the subject is taboo, and subterfuges are proffered when facts are desired. When a child becomes curious regarding the mode of his arrival in the family group, he is told, "the doctor brung him in his bag." Later on some better informed playmate dispenses some distorted facts to the youngster, and, while the child has been taught not to tell untruths, he discovers that someone has slipped him a whopper. If he goes to that someone to get his curiosity straightened out, too often he is dismissed with the grudging admission that his first information was wholly and totally false and that the subject must not be discussed. It is treated not only as a secret that must never be talked about but also a subject the very consideration of which renders one unclean. The child does not feel unclean, but, since his preceptor does, there is nothing to be done about it other than to humor this peculiar person and satisfy normal curiosity by consulting less reticent though oft-time unrealiable sources. By the time the youth arrives at the age when the fires of sexual urgency begin to glow, he is so estranged from his mentor through this prudery that a sense of shame on the part of both parties rules out any except the most cursory treatment of the subject. Once more information is supplied from unsupervised sources, and the youth is indeed fortunate if it is safe to follow. Many are the pitfalls that beset the individual in the transitory period between youth and adulthood, when habits and ideals are formed which largely influence the remainder of his life. None are more important than those concerning sex, and none have such meagre sources of factual, sane information. Those who succumb to the urgency of the instinct do so willingly, for the most part, albeit fearsome of immediate, direful consequences. When these fail to follow promptly they are lulled into a readiness to embrace the opportunity to again repeat the delightful experience. Environment, ideals and information are most important factors of influence at this particular time.

Later, arriving at the time when it becomes desirable to wed, the man and maid enter upon a system of living in which sex plays a major role. No training has been given them in the management of this force. No source of counsel is openly available to them that they may be advised freely and unreservedly without a sense of shamefulness. Not only may they not freely seek information from others, but there is also a timidity that restrains them from discussing the subject with each other. Sexual difficulties are ignored, homes wrecked, and families separated—all because of the fact that we are not honest enough with ourselves to recognize and deal with this subject in an honest, open and straightforward fashion. There have been a few attempts to mitigate some marital difficulties. The movement for birth control, through the dissemination of methods and materials for prevenception, strike at one phase of the problem. This is in violent opposition to the religious convictions of a large portion of our population and cannot be counted upon to solve that part of the problem for many of our citizens. Even though it were universally approved, it would still leave the greater portion of our sexual difficulties, and there is some reason to think that it might provide us with some more than we already have.

The recently instituted drive on venereal disease is reporting progress, and while very gratifying, yet it has not improved our sexual behavior. In this endeavor the main effort has been to get the cases under treatment early and to render them noninfectious. This, of course, is very important, and it practically covers the work which is exclusively in the field of the health official. As a preventive measure it is the best that can be done through the utilization of medical science. Prophylactics have never given dependable results except in the individuals who are under supervision. There is also an opposition on religious grounds to the use of such agents, which would restrict their field of usefulness even though it were possible to have them used effectively by the civilian population.

Surely something can be done to extricate us from the morass we are in. It is a mess resulting from unintelligent handling of the subject, dating from time immemorial. Taboos and customs that have thriven on the misguidance and irrational treatment of the subject cannot be eradicated immediately. Most thinking people agree that the situation is intolerable, yet nothing is done about it. No one has a solution which will effectively and promptly cause the whole problem to vanish with the speed of the fading of the afterglow; hence it is dismissed with the comment, "It always has been, it always will be." No reformation of the habits of a populace has ever been accomplished in the twinkling of an eye. The bozo who invented the wheel did not build an airplane, but in all probability he was confronted with a problem in transportation when the idea of utilizing a disc "bopped him in the noggin." Many have been the trials and innumerable have been the errors intervening between the use of that cunning contrivance by our ancient chum and the development of the ingenious gear used in modern transportation.

Possibly a start has been made in a movement

toward better sexual deportment, if the opportunity is not missed. The meritorious accomplishment of Dr. Parran, by dragging the discussion of venereal disease into the open, may be the opening wedge in a move to more salutary sexual conduct. Progress is practically impossible until we are willing to meet the problem openly. Sex is not any more shameful or disgusting than eating is shameful or disgusting. Humans must eat to live, and sex is necessary for reproduction. Sex becomes shameful and disgusting only when misused, and the same principle applies to eating. Your attention is directed to the fact that an ill-mannered diner can do unpleasant things to the enjoyment of a meal, yet it does not cause one to refrain from exchanging new and tasteful recipes or novel ideas in table decorations. The first attempts of a babe to feed himself arouses ecstasies in the breasts of none save the fondest of relatives, and it is doubtful if his table graces would ever make him an agreeable banquet companion were he to receive no better training in them than he does in matters concerning sex. If we are able to get this subject out into the open and fully, frankly and freely discuss it, we may have an opportunity to correct some of its many maladjustments. The way will be long and the mistakes will be many. Improvement will be slow. Mankind traveled many centuries before it became commonplace to attain a speed of sixty miles per hour. Vast quantities of material and a myriad of lives were destroyed in experimental projects to improve means of transportation, yet the benefits accruing to us are boundless because of the simple fact that something was done about the matter rather than to assume that since nothing had ever been done, nothing ever could be done.

Revision of the hoary attitude toward sex must be made.

Cannot the church offer something more specific than a repetition of the Commandment, with the promise of life everlasting for those who observe it? In directing us to a way of life, is there not something that can be held out to us which will promise worthwhile results in the life we are now living—not just those old platitudes about virtue being its own reward, and that failure to keep the law will produce instant wretchedness? So long as there is adherence to this method, there are bound to be folk who will read the story of Joseph and find that he was cast into prison as a result of his refusal to accede to Mrs. Potiphar's iniquitous proposal; whereas David's philandering gained him the possession of a very delectable damsel who by conspiring the death of her husband obviated the trouble of hopping out of the window when that worthy unexpectedly came home. Under such conditions the dominie need not be too greatly astonished should the neophyte harbor the notion that he has been presented with another variation of the "doctor's bag" type of narrative.

Do not the followers of Blackstone have more to give us than simply to prosecute our prostitutes, jail our sex criminals, and procure divorces for those in marital sexual difficulties? It is possible that the legal profession could make a great contribution in this endeavor by examining and pointing out the factors responsible for the production of these unfortunates, and by devising means to lessen the crop.

And to you of the medical profession, is the acme of your contribution to be nothing more than the treatment of genito-infectious diseases and the removal of prostates and fallopian tubes whose usefulness have been destroyed? How about dispensing some of your knowledge to the general public, which might help the average man and woman to escape some of their sexual trials? Of course, you do not have all the answers, but the information that you do command will do no good unless it is used.

Mr. and Mrs. Parent also can get into this. In fact, unless they join up there is going to be very little movement. They can give to their own children a sane and truthful explanation in answer to budding curiosity regarding sexual matters, and, when the queries get too deep for them to answer, they can direct the questioner to reliable and safe sources of information.

Court House Annex.

ABSTRACT

AN OCCUPATIONAL FUNGOUS DISEASE

Prompt diagnosis and treatment are essential in cases or sporotrichosis, an occupational fungous disease, Frank M. Gastineau, M.D.; Louis W. Spolyar, M.D., and Edith Haynes, Ph.D., Indianapolis, point out in *The Journal of the American Medical Association* for September 27 in a report of 6 cases among florists.

The causative fungus is called Sporotrichum schencki. The disease chiefly affects agricultural manual workers and tends to be disabling and chronic if not diagnosed early. It is generally initiated by an abscess due to injury of the skin, followed by a series of nodules or lumps under the skin which are painless and later ulcerate. The ulcers resemble tuberculosis of the skin, syphilis sores, staphylococcic infections or tularemia. The authors point out that if the disease is not diagnosed early the victim "undergoes an economic loss out of proportion to his disease; he may also suffer a stigma due to a wrong diagnosis."

Discussing the source of their patients' infections the authors say: "Tabulation of the raw materials and by-products used revealed that all 6 handled different fertilizers, 3 used peat moss of different brands and all used sphagnum moss, plumosa and flat ferns. One used home-grown carnations and 1 grew roses. Epidemiologically, the common denominator appeared to be the sphagnum moss, the plumosa or the flat fern. . . ."

THE JOURNAL
OF THE
INDIANA STATE MEDICAL ASSOCIATION
DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA
Copyright, 1941, Indiana State Medical Association

Office of Publication: 1021 Hume-Mansur Building, Indianapolis
Editor: E. M. Shanklin, M.D., 5141 Hohman Avenue, Hammond, Indiana
Managing Editor: Thomas A. Hendricks, 1021 Hume-Mansur Building, Indianapolis
Assistant Editor: Miss Nella Rokke, 1021 Hume-Mansur Building, Indianapolis
Editorial Board: Term Expires
Edgar F. Kiser, M.D., Indianapolis....Dec. 31, 1941
Lyman T. Rawles, M.D., Fort Wayne....Dec. 31, 1941
James F. Balch, M.D., Indianapolis....Dec. 31, 1942
E. L. Van Buskirk, M.D., Lafayette....Dec. 31, 1942
Herman M. Baker, M.D., Evansville....Dec. 31, 1943
L. G. Montgomery, M.D., Muncie....Dec. 31, 1943

DECEMBER, 1941

Editorials

Merry Christmas to Hoosier Medicine

Again comes the Christmastide. Again we take time to participate in the greatest of our National holidays. Whether it be the exchanging of gifts or cards, or whether it be nothing more than a hearty greeting, "A Merry Christmas to you," we all take some part in the festivities of this day. We of the American continents are, of course, more fortunate than those in the European countries; for these peoples Christmas will for the most part be but another dreary day—a day of wonderment and doubt.

We, however, can put aside the cares of a war-torn world and, at least for the one day, celebrate the natal day of the Prince of Peace.

THE JOURNAL wishes all its readers an old-time Merry Christmas!

THOUGHTS ON SYPHILIS EDUCATION

In the last year and a half several unique studies have been added to the literature of syphilis. These have had to do with an analysis of the types of questions which the medical profession ask in regard to this disease. The material which Stokes and Ingraham used consisted of a large group of inquiries on this subject, made either to them personally or to the "Queries and Minor Notes Division" of *The Journal of the American Medical Association.* Later, at the last meeting of the American Medical Association in Cleveland, Cole reviewed these studies of Stokes and Ingraham and added certain deductions of his own.

All three of the above papers are worthy of careful reading because the questions directed to those men and to THE JOURNAL over a period of years certainly gives a fair estimate of our general professional knowledge of this disease and shows the problems which confront the man both in general and special practice. They would prompt one to think of two points: (1) is consultation by correspondence workable? and (2) is the average medical school teaching adequate in this subject?

Regarding the former question, it can be said that no correspondential method can possibly outweigh the value of the patient having personal consultation with a private or institutional physician who has been thoroughly trained in this field. Certainly, if the consultant is to take the responsibility for diagnostic opinions or thereapeutic advices given, he should have the advantage of seeing the patient for interview, physical examination, and any necessary laboratory work-up. However, there are those occasional instances in which inaccessibility to a specialized center or some other factor renders it impossible for the referring physician to receive special advices except by letter. In those cases Stokes believes that valuable assistance can be given by correspondence with some specialized individual or institution, providing certain rules are followed. He insists that the person engaged in answering these inquiries must be fully trained in the field of syphilis. Further, he demands that the inquiry contain full data pertinent to the case in question and that, unless all information is fully presented to the consultant, he should send back a questionnaire form for completion by the questioner before rendering an opinion. Already certain agencies, such as state health board divisions, medical school departments and other groups are attempting such a service. Time will tell how successful such a plan can be.

Now as to the second question, it seems true that most medical schools have realized the importance of an adequate training of the student in this subject and have, therefore, set aside a right sufficient time for its teaching. However, when one sees the fundamental character of some of these inquiries, even by the recent graduate, one wonders if those hours are being organized to their fullest advantage. It is evident that a full coverage of the subject is difficult when one regards the mass of knowledge accumulated concerning this disease and as it ramifies into the various basic, laboratory, and clinical branches of medicine. The final question is, would better teaching result from a group of consecutive inter-departmental lectures, presented in series in one of the clinical years, instead of the usual system of scattered references to the disease as it comes to consideration in the various departments during the upper three years of medical school? This, again, is a matter for evaluation.

HEIL—CRUM!

And, we might also say, *Hail*, Indianapolis Better Business Bureau!

Indiana folk, thousands of us, have watched with interest the progress of the efforts of the Indianapolis Better Business Bureau, under the direction of that master-producer, Toner W. Overly, in its fight against misrepresentation and quackery throughout Indiana. The Bureau has in these past years done and is continuing to do a good job of cleaning up mercantile and financial fraud in the Indianapolis area, and on occasion has reached out into the field of medical charlatanism.

A few years ago the Bureau financed and prosecuted a campaign against one of the most notorious "cancer hospitals" in the country, located in Indianapolis and owned and operated by Dr. Charles C. Root. The hospital was closed and the medical license of Root was annulled. (It never has been restored.) The Bureau came in for much acclaim for this valiant performance, and of late has begun a campaign against some of the more notorious violations of the medical practice law of this state.

Many licenses have been revoked as a result of the present campaign, most of these of the drugless practitioner variety. In most instances the offender took his "dose," and no more was heard of him. However, when the Bureau took up its fight against one Heil Eugene Crum, of Indianapolis, they met up with a chap who would not relinquish his fraudulent game without a long hard fight.

The Marion Circuit Court upheld the action of the Indiana State Board of Medical Examination and Registration in revoking Crum's three drugless licenses, whereupon he appealed to the Supreme Court of the State of Indiana. The matter was argued long and loudly before that body, Crum's attorney setting forth all kinds of allegations—claiming discrimination, persecution and all such malevolences—but on November third, in an opinion written by Justice Curtis G. Shake and concurred in by the entire court, the decision of the Marion Circuit judge was upheld — and Crum now finds himself sans three licenses and a lucrative business.

The opinion of Judge Shake is a masterpiece, written in his best Knox County Bar Association vein; it is terse, clean-cut and leaves nothing for the imagination. We wish we might have space to print it in full, for it means much to those who will in the future continue the campaign against these enemies of society.

Readers of the Indianapolis papers are fully familiar with Crum's little box, a gadget with which he professed to make miraculous cures, make things grow, increase one's finances, etc. It variously was termed by Crum; at times it was called an "etherator" and at other times a "coetherator." Judge Shake, in speaking of this contraption, says, "the complaint shows that this machine was totally devoid of any therapeutic value whatever." The judge further refers to the fact that in the use of the gadget the patient would moisten a slip of paper with his own saliva, whereupon Crum would place the said paper in the "box" and manipulate a pedal or lever, all the while intoning the names of various diseases and the names of the more important bodily organs — and come out with a diagnosis!

Now, let's attend to the judge for a while and hear what he officially has to say about all this claptrap sough and nonsense. (Yet, enough Hoosier folk fell for this line of guff to afford a nice fat income for Heil Eugene Crum!) In the judge's opinion, he writes that among the diseases the appellant claimed to be able to treat and relieve, and in some instances cure, by this method were cancer, blindness, arthritis, nervous disorders, hemorrhoids, abscesses, kidney ailments, stomach disorders, leakage of the heart, skin ailments, ovarian trouble, varicose veins and tumors. He asserted that he could lengthen or shorten a patient's legs, cause amputated fingers to grow back into place, and fill cavities in teeth — not with a foreign substance but by restoring them to their natural condition. He said it was not necessary for the patient to be present or to visit his office, but that he could broadcast treatments to them wherever they might be located. The appellant's practice was not limited to human ills. He also claimed to be able to administer "financial treatments," by which money could be put into the hands of his patients; that he could fertilize fields within a distance of seventy miles; could kill dandelions over any particular area; and could treat golf greens as far distant from Indianapolis as Decatur, Illinois, causing the clover to turn brown and dry up and thus give the grass a chance to grow.

The judge then goes on to say that the bare mention of these exaggerations "are sufficient to suggest their untruthfulness and brand them as designedly fraudulent."

In his conclusion, the judge wrote, "the above summary of the evidence, taken from the appellant's own brief, was sufficient, in our judgment, to justify finding him guilty of gross immorality, and that he is utterly unfit to be licensed by the state of Indiana to treat human ills."

Thus ends the "professional career" of one of the archquacks of the day; we say *ends* because we do not believe Crum nor his attorney will be brazen enough to appeal this case to the United States Supreme Court. (In the event such action should be taken, we have no fear of a reversal.) As Justice Shake has said, Crum's own testimony is sufficient to prove a charge of fraud. This decision should be monumental in its results; the medical profession should take every advantage thereof in assisting to weed out the few blatant quacks who continue to carry on their nefarious practices within our borders.

And, again we say, *Hail*, Indianapolis Better Business Bureau! *Hail*, Toner W. Overly!

THREE GENTLEMEN FROM INDIANA

The annual American Medical Association conference of state association secretaries and journal editors held at Chicago, November fourteenth and fifteenth, turned out to be pretty much of a Hoosier affair. The three guest speakers who addressed the conference upon the national military situation, the topic of the hour, were Indiana men—General Loy McAfee, Assistant Surgeon General of the United States Army, born in Delphi; General Lewis B. Hershey, National Director of the Selective Service System, born in Steuben County, and Watson Miller, Assistant Administrator of the Federal Security Agency, a native of Rensselaer.

Indiana could well be proud of her sons, and the Indiana profession, which as a whole has had considerable misgiving about the fact that under the guise of an all-out national emergency the government at Washington is favoring all-out socialization of medicine, could find much comfort in the remarks of this Hoosier trio. Those who attended the conference left with the assurance that if these three gentlemen from Indiana, who occupy three key positions, have anything to do with matters the freedom and independence of the medical profession will be safeguarded.

In this regard, perhaps the most significant statement of the conference came from Watson Miller, who has long been a national figure in Legion affairs. Under a Washington date line of November third, the Associated Press sent out the following "story":

> "Paul V. McNutt, federal security administrator, has announced the establishment of a Procurement and Assignment Service with the duty of assuring most efficient use of medical, dental and veterinary personnel in the defense program.
>
> "McNutt said the service will see to it that both military and civilian needs for physicians, dentists and veterinarians are filled.
>
> " 'In the event voluntary recruitment fails,' McNutt said, 'I propose, with the approval of the President, to request the Procurement and Assignment Service to suggest necessary legislation for involuntary recruitment if the exigencies of the national emergency may appear to require it.' "

A clipping of this story was sent to Paul McNutt by Dr. Charles Bird, chairman of the State Association M-Day Committee, stating that the medical profession was greatly concerned over this release. In his talk before the secretaries, Mr. Miller referred to this newspaper story and Doctor Bird's letter as follows:

> "One of Governor McNutt's old friends wrote to him only day before yesterday in regard to the so-called conscription of physicians. He quoted a release in the press of November third. We wish to emphasize the words 'In event voluntary recruitment fails.' Further, I wish to state that *there is no purpose on the part of the Federal Government or any department or agency or responsible individual of the Federal Government to regiment or dictate the work of American physicians.*"

Despite the fact that Indiana doctors still remember Thurman Arnold and the many attacks made against the profession at the National Health Conference, the above statement, coming as it does at this time from one occupying such a high position as does Mr. Miller, should have real meaning and significance.

General McAfee stressed the fact that the duties of a medical officer in the field of operations is different from that in civilian life and, hence, a training period is necessary to prepare any doctor for front-line duty. He said that there would be a shortage of 25,000 physicians. The Army hopes that these men may be obtained from volunteers. He stated that services, insofar as possible, would be rotated, so that most men would first spend time with combat units and then have an opportunity to serve in a hospital. He explained the function of the "Medical Administrative Corps," in which medical students can enlist and continue their studies, take their year of intern training, and finally become officers in the regular medical corps.

As you know, an agency for the procurement and assignment of physicians "to meet the many needs arising out of the emergency in which the nation finds itself," headed by Dr. Frank H. Lahey, president of the American Medical Association, has been established by President Roosevelt. This is in accord with the resolution passed by the House of Delegates of the American Medical Association at the Cleveland meeting. Major Samuel Foster Seeley, of the Army Medical Corps, who is serving as executive secretary of the committee, made a fine impression at the conference, as "a man who knows the answers."

In order to keep the profession informed in regard to the procurement and assignment service, *The Journal of the American Medical Association* shortly will make a complete statement of the organization and personnel, and the aims and the program of this service.

The man who stopped the show, however, was General Hershey. In a direct, unpolished, commonsense, humorous manner, he outlined the problems of selective service; told of the new arrangement for examining selectees; and thanked the profession for the tremendous amount of work done by the doctors on a voluntary basis in connection with the draft. He spoke of the new plan to rehabilitate the "rejects" and urged that joint meetings of the medical and dental professions, along with the proper Navy and Army authorities, be held in each state to work out the details of the plan. He said that Selective Service was concerned only with those rejected on the B_1 level and above; that is, those who were turned down because they lacked a tooth or two, or the required number, or had

high pulse rates, etc.,—a class totaling 200,000 individuals.

In short, all three of these speakers showed a remarkable understanding of the problems and affairs of the profession—and, above all, showed a high regard for the patriotism and general effectiveness of American medicine in both civilian and service life today.

JUST INCHIN' ALONG!

There are those among us who contend that at a not distant date the medical profession will awaken to the discovery that Federal and State interests have "edged in" on us in no small degree; in other words, these folk feel that State Medicine will be upon us sooner or later.

One new straw that might indicate a wind trend is the recent ruling on the matter of meeting the medical needs of the ever-growing list of indigents who now are receiving a monthly stipend from various governmental agencies. Prior to this ruling such medical care was rendered through the township trustee, who in turn raised the necessary funds via the well known taxation route. (In whatever manner this relief may be extended, "Old Man Tax" still pays the bill, which means that *we* do the paying.)

It is also noted that the Federal government will pay fifty per cent of these costs, *if they may have their own way about the manner in which the job is to be done.* While it is true that under this new set-up there will be free choice as to physicians to be called upon for this medical care, there is little or no provision for the assurance that these physicians will be paid for their services; after all, that little detail is left wholly to the whim of the patient. The "government," after deciding that such indigent needs medical care, and having satisfied itself as to the probable cost of such care, turns over the necessary money to the *patient*, who selects his own physician, gets the required treatment — then what? *If* said patient feels so inclined, he digs down into his pocket and pays the bill; *if* such a laudable inclination does not properly register within him, the bill remains unpaid—and that is the end of the tale. There is no provision which will require the indigent to pay the bill even though he had been given the funds necessary for that purpose, nor is it in any sense the duty of the County or State Welfare Board to do anything about such unpaid bills. Unless human nature has recently undergone a marked change for the better, these unpaid bills will be legion.

We, of course, firmly believe that medical care with free choice of physician should be extended to everyone, regardless of their ability to pay—no one of us believes otherwise. But the present set-up, regardless of its general merit, completely falls down in the matter of proper remuneration for these medical services. Our observation over a long period of years has been that these indigents, even before they became indigents, never were so "hot" when it came to paying medical bills. Today, there are too many other uses for money, it seems, and one can but wonder as to just what per cent will play fair and pay these bills, *using the money handed to them for that purpose.*

Virgil Sheppard, of the State Department of Public Welfare, is quoted as saying in this connection, "Back of this is the philosophy that an administrative agency under a democratic form of government has no legal right to tell a recipient how to spend his cash." We feel that the same administrative agency, learning that a recipient of such funds is not spending them in the proper manner, might well take steps to see that such funds no longer reaches those hands.

We note another weak spot in the plan. An indigent deems it necessary to have medical or surgical care; he makes the proper application, and the request is granted. A proper sum, say fifty dollars, is awarded for this purpose, paid over to the indigent, cash in hand. Handling that much money at one time — it is all his personal property and is probably more cash than he has had in his jeans in many a moon — his mind becomes active. He opines, "Maybe I do not need that operation right now; maybe I do not need a protracted course of treatment; maybe Father John or Lydia Pinkham has what it takes, and a few bottles of their product may do the work." Then what?

If no agency has the right to say how a man shall spend his cash, neither has any such agency the right to compel a man to take treatment for an ailment, medical or surgical!

We shall watch with advertent interest the operation of the new scheme.

THE STATUS OF THE MEDICAL STUDENT

The matter of deferment of medical students and of premedical students is being considerably clarified, it seems. The Selective Service heads have made it clear that they fully understand the dire need of continuing the medical education program as it now is being carried out in this country and have expressed themselves as being highly in favor of permitting these young men not only to complete their medical courses but their intern year as well. The latter year may be served in a hospital or in army service. However, it is made plain that such students will be expected to enlist in the M.A.C. during their course of study in the medical schools. It is well to note that the whole plan applies only to those whose scholastic record is of a high order.

During the recent discussion of this problem at the secretaries-editors conference, it was brought out that a few medical students have taken advantage of these provisions, this group being composed of those men who will have reached the age of twenty-eight before completing their medical

course. It was stated that there were numerous instances in which these men, although they had enlisted in the M.A.C. during their medical course, had thumbed their noses at the Selective Service Boards, once they had reached the age limit. Steps have been taken to correct this evil.

Another interesting bit of information regarding these problems came out in the discussions, that relating to the role of the medical schools in this program. It was stated that some time ago every duly recognized medical school in the country was advised of the ruling of the Selective Service heads and that the majority of such schools had cooperated to the fullest extent. One school, for instance, reported quite promptly that ninety-five percent of its enrollment had enlisted in the M.A.C. On the other hand, some schools were very slow in taking action in the matter, a few apparently having done nothing about it.

Another point brought out was the misunderstanding many of the local boards have in the matter. A few of these have in the past called medical students for examination and in some instances have inducted them into the service as privates. Later, these men were recalled and given the proper classification.

We have it directly from General Hershey that these misunderstandings will be ironed out in due time and that bona fide, "grade A" medical students will be able to complete their courses, not only in the school but in their intern year as well. This, of course, calls for the highest degree of cooperation from our medical schools. In the first instance the number of applications for entrance to these schools is so great as to permit the selection of students of the highest standing. Secondly, these schools *must* present the plan in full detail to the full enrollment. They should go farther, they should stress the great need of medical men for army service and urge every student to enroll in the M.A.C.

Now that we have the whole matter of the status of medical students cleared up, it becomes the duty of the medical profession to lend every assistance to the Selective Service System, and this applies to the medical schools as well. We are in for something, we do not know just what; we have an important role in the oncoming drama—let's act it, thoroughly.

General McAfee, in addressing the secretaries-editors conference in Chicago, stated that the reason for the increase in the number of physicians for the Army, Navy, etc., is due to "mechanized war." The war of today bears little resemblance to that of World War I in so far as medical and surgical requirements are concerned.

Your secretary has received dues receipt books for 1942. Why not get your receipt now?

Editorial Notes

We have authoritative information that when the Defense Army enrollment is completed, we will need twenty to twenty-five thousand additional physicians. The estimate recently made, that six physicians will be needed to care for each one thousand soldiers, seems still to be in force.

The gleaming white cross atop the Indianapolis Methodist Hospital now sends forth red rays, the American Red Cross having given its approval to this display as a result of the cooperation of the White Cross Guild in connection with local Red Cross work.

The shortage of hospital beds in our various encampments at the time of the Selective Service program initiation, was estimated at 18,000. Since that time, however, numerous new hospitals have been built and additions made to already existing hospitals so that at this time there is no acute shortage, at least under normal health conditions.

Monroe County physicians have offered their services in a campaign for the control of diphtheria in that community. Clinics are being established and every school in the county will be covered. While this will include all school children, particular emphasis is placed on the importance of the immunization of children of pre-school age.

The *Bloomington World* calls attention to a proposal of the American Medical Association limiting the sale of paregoric, making it necessary to have a doctor's prescription in order to purchase this drug. The *World* also mentions the fact that in Indiana many drugs are available over the counter, the promiscuous sale of which is prohibited in many other states.

Hoosier folks have in recent years become so accustomed to our State attaining top honors in this and that, hence it may create no particular excitement to learn that once again we head the list in the matter of some crop or other. Corn King, Tomato King, Potato King—all these have become old stuff to most of us, but now we must make way for a newcomer to the king row, that of the Onion King. A chap in Pulaski County recently acquired that title when his onion harvest showed the amazing total of 1,716.91 bushels of this pungent vegetable from a single acre of muck land. One of these days our folks will realize that, after all, Indiana is no mean state.

"Chief Eagle," a "yarb doctor" who has been wont to ply his trade downstate but who ran afoul of the law, brought a new alibi when he exhibited a photostatic copy of an old treaty which gave his tribe the right to hunt, fish, and to use herbs as remedies for bodily ailments. The authorities, of course, maintain that this means that Chief Eagle has the right to use such truck personally, but not for indiscriminate sale to the gullible public.

We deem it advisable to suggest again that physicians be most careful regarding their narcotics. Newspapers throughout the state very commonly report the robbery of physicians' offices, the stealing of bags from cars or elsewhere, most of which is done by those seeking narcotics. As is generally known, much of the supply heretofore shipped into this country has been cut off, and the addicts are put to it to satisfy their craving.

About the time we begin to believe that the American public has become sensible regarding this "reducing" business, along comes an article which disturbs us greatly. This time it is an article which appeared in *Hygeia*, in which the writer avers that the people of this country annually expend more than four million dollars on garments and gadgets that are alleged to reduce fat. This, of course, does not include the money spent for drugs, etc.

In a recent issue of the Columbus *Republican* appeared an editorial that deserves mention. It discusses Science and Health, as follows:

"Science giveth and Science taketh away.

"Consider smallpox: statisticians, those funeral directors of facts, tell us that there were only 2,839 cases of the disease in the United States last year, just half the number in the previous low year of 1934. And not one case was reported in an area including a quarter of our population—that is, in the New England states, the Middle Atlantic states, Delaware, Maryland and the District of Columbia.

"Yes, smallpox is on its way out. Canada, for example, had only 11 cases reported in 1940.

"The same trend is noted in the other pestilences, although moving slower; and we may expect to see, or our children to see, diphtheria, scarlet fever, the venereal infections and tuberculosis pushed back into the twilight zone of their ageless conquest of man by the infiltration tactics of Science.

"But the Science which gave us vaccine to save us, also gave us gasoline to tear ourselves apart in peace and in war, and enables us to concoct a new plague for every old one it displaces. It has not yet supplied an immunizing agency for ruthlessness and criminal recklessness in the individual or the body politic."

One of the problems of the Selective Service program is, what to do with the neuropsychiatric cases. Certain of the government hospitals already have made provision for these cases, but medical men are of the opinion that the handling of these cases in army hospitals during these times of stress, is a grave error. They believe that the hospital equipment utilized in the care of these cases and the necessary complement of doctors to look after them might well be devoted to other purposes.

Herewith is quoted the warning issued by the Town Board of Lowell, located in the southern part of Lake County, to would-be Hallowe'en pranksters:

NO MONKEY BUSINESS

Notice is hereby given that no vandalism will be permitted on automobiles and no soaping of car windows will be tolerated on Hallowe'en this year. Offenders will be arrested and taken into court and fined. Harmless fun will be permitted, but the damaging of property will not be. Remember, no monkey business.—Town Board of Trustees.

No doubt every kid in town was so scared by this ukase that he sat by his own fireside the endurin' night!

Olin West, the veteran secretary-manager of the American Medical Association, recently paid the pathologists of the country a pretty compliment. He said that he considered it a crime to rate pathologists as secondary to men in the actual practice of medicine, as is done so frequently in many quarters. He expressed himself as being in favor of "more and better pathologists; a deeper study of pathology, especially what used to be known as 'dead roem' pathology." We are quite in accord with Dr. West on this. We believe that pathology has too long been denied its proper place in medicine and, while we are on the subject, we might say that we continue in our belief that a modern hospital without a competent pathologist on its regular staff is quite like a ship putting out to sea sans compass and sans pilot. In this connection we want to comment on the recent biography of the late Dr. Welch, of Johns Hopkins, the book having been written by Simon Flexner and his son, James Thomas Flexner. It is beautifully written and tells in a most intimate manner of the early days of one of the great medical men of this country; it might well be termed "The Romance of Pathology." It is unquestionably the most interesting book we have picked up in years, and we strongly commend it to every physician who is really interested in medicine. It is our opinion that if one-third of Indiana's physicians would read this book there would be such a demand in this state for full-time, competent pathologists that every hospital of consequence would maintain such a department.

The recently enacted legislation covering the examination of all Indiana school teachers for tuberculosis is bearing fruit, so it would seem. In a school of Johnson County two teachers were found to be infected, one of whom has since died, and the other has retired from active duty and is now receiving proper treatment. All the pupils in this school, approximately two hundred fifty, have been examined for tuberculosis and seventy-nine of them were found to have a positive reaction.

The "open season" for rabbit hunting is now in force and thousands of Hoosier citizens, as well as many from out of state, are gunning for these little animals. It is well to remember that tularemia, commonly called "rabbit fever," still menaces these hunters, as well as those who dress the dainty little bits for the frying pan or for the delectable stew known as "hassenpfeffer." Tularemia is not rare in Indiana by any means, one hundred seventeen cases having been reported for last year, twelve of whom died from this disease. This infection can be prevented to a very large degree by care in handling the game little bunny, the best protection being the use of rubber gloves in this process and seeing that the meat is well cooked. It might also be well to caution physicians to be on the alert for the symptoms of this disease, for early recognition thereof has much to do with the outcome.

The *Waterloo Press* published the following editorial on "Socialized Medicine" in its October ninth edition:

"Those who urge socialized medicine seem to blind themselves to facts. For the plain truth is that our system of private, independent medicine has been responsible for practically all of the great medical discoveries and advances of modern times.

"It was independent medicine that discovered vaccination, developed abdominal surgery, and has practically abolished diphtheria and typhoid. It is independent medicine that has put tuberculosis 'on the run.' It is independent medicine that has reduced childhood deaths and illness to but a fraction of what they were twenty or thirty years ago. And it is independent medicine which is making great strides in combating other bacterial killers.

"Under a system of socialized medicine the doctor is simply a creature of the state. The competitive urge—which makes for progress in every field of life—no longer exists. There is little opportunity for advancement. The security of his position depends on pleasing the politicans in power—not on the success with which he handles his practice. That is not theory—the history of socialized medicine in the many countries in which it has been tried, tells the story.

"Americans have become the healthiest, longest-lived people on earth."

Indiana continues as the center of population for the United States, though by a narrow margin. It now is located exactly two miles southeast-by-east, of Carlisle, in Sullivan County, which is thirteen miles east of the 1930 site. The term, "center of population" is thus defined by the Census Department, "the point upon which the United States would balance if it were a rigid plane, without weight, and the population distributed thereon." Figure that one out, if you can!

We quote the following announcement sent out by the Jay County Medical Society in connection with their meeting of October third. Jay County is tops when it comes to originality, and their announcement merits editorial attention:

> When the Lord made Adam out of mud and stood him up against the fence to dry, he gave him the five senses and put them all up in his head handy for his convenience; but no sooner had he come off the assembly line than the Lord realized that the sixth sense—common sense—had been left off. Thus man without this sixth sense has been unable to use the five to any advantage. He can't co-ordinate, so we have called in a Co-ordinator to tell us how to correct man's mistakes.

According to the *Kokomo Tribune-Dispatch*, one of the most modern institutions is doomed to disappear, referring to what is generally termed the "waiting room" in the modern hospital—a room set aside for expectant fathers during the critical hours of parturition. According to the story quoted below, the "graduates" of this school will lord it over the others gathered in the hospital. Such a graduate will be a superior sort of being and, no doubt, his attitude will arouse an interest in all expectant fathers, that they, too, may approach this hour in the most suave manner:

PARENTHOOD CLASSES

> Dad is going to school again, and in the queerest way. In Cleveland there are classes now for expectant fathers. The first one started the other day at a hospital, and there will be other classes at other hospitals during the winter. The work is handled by the local Child Health Association and supported by the Community Fund, and Dad can matriculate for $1. The course is intensive but only takes one evening a week for three weeks, with some home work in between.
>
> The classes are intended to teach Dad the basic facts about babies before and after birth, and give him some practical information on how to dress them and so on.
>
> Mother could tell Dad most of those things, but maybe he wouldn't listen. There's something about medical authority. When the doctor speaks, Dad generally sits up and takes notice.

The life of a publicity agent is usually not a bed of roses; some of his most brilliant ideas "come a cropper" just when he had thought he was making the hit of his career. Seems that the chap who directs public relations for the tomato packing industry in Indiana conceived the idea of having the new United States battleship, "Indiana," christened with tomato juice rather than with champagne. His idea was to collect juices from the plants of some 200 packers, members of his association, and blend them into one bottle, this to be broken over the vessel as she slid down the ways. But he reckoned without the builder of the vessel who demanded that the christening be done in the customary fashion; probably did not like the idea of a gory-hued fluid trickling down the sides of the vessel as it headed seaward. Thus another brilliant idea went for naught.

The following editorial from the Elgin, Illinois, *Courier-News*, may prove of interest to those who like to read geriatric subjects:

METHUSELAHS OF GERONTOLOGY

Gerontology—that's a new word. It means that branch of chemical science concerned with the processes which occur in the human body as a result of growing old. According to those who concern themselves with such things, if the death rate among humans remained where it is at the age of 10, then men would live to be 550.

If gerontology had been perfected 550 years ago, a man born then would be today about to die. His earliest recollections would be concerned with the defeat of the Teutonic Order of Knights by the Poles at Tannenburg, with the driving of the Mongols out of Russia, with wars between England and France, with the end of the Roman Empire, with the Hussite religious persecutions, with dynastic wars in Japan.

We suspect that such a man, coming now to die, would take a last look about him and murmur, "Well, this is where I came in!"

The following article was prepared by Dr. Verne K. Harvey, medical director, and Dr. E. Parker Luongo, medical officer, of the United States Civil Service Commission in connection with an intensive recruiting program being carried on to secure medical officers for vitally important government positions. A reprint of the article, which had been published in *Medical Annals of the District of Columbia*, "Annual Scientific Assembly Number," September, 1941, was submitted by William C. Hull, executive assistant, United Civil Service Commission, who felt (and we agree) that publication in THE JOURNAL might prove valuable to physicians interested in a career as a Federal Medical Officer. Dr. Harvey's article follows:

OPPORTUNITIES FOR YOUNG PHYSICIANS IN CIVIL SERVICE

Until recently, the opportunities for a career as a Federal Medical Officer, other than those afforded in the commissioned services of the Army, Navy and Public Health Service, have not received due consideration by the majority of the medical profession in the United States.

Provisions have been made for the employment of physicians in both the commissioned and civilian services by certain laws enacted by Congress and Executive Orders issued by the President. During non-emergency periods approximately the same number of physicians are employed in the classified civil service through open competitive examinations under the provisions of the Civil Service Act and rules, as are commissioned in the Army, Navy and Public Health Service.

Because of the present national emergency, large numbers of recent graduates of medical schools have been employed to provide medical care for the growing armed forces of the nation. This trend has brought about an acute shortage of young physicians available for employment in the classified civil service. The medical functions of the Veterans Administration and other Government agencies, however, must go on both in peacetime and during a national emergency.

Inasmuch as it is inevitable that the ranks of medical officers already in the various Government agencies will be depleted by retirement of the older doctors and by entrance of the younger doctors into active military duty, an effort is being made to build up the staffs of these agencies with young physicians and recent graduates of medical schools who wish to make the Federal service a career. It is therefore necessary to bring to the attention of young physicians the opportunities which are afforded by such a career.

In the past, opportunities afforded by a medical career in the civil service have been obscure in the minds of the majority of the physicians in this country inasmuch as they have not been informed generally of the fields or branches of medical practice which are represented in the civil service. It is not generally known that a physician in the civil service may participate in any phase of medical activity, ranging from a rural practice to the most highly specialized fields.

It may be well to emphasize that not all civil service physicians are employed in large Government hospitals. On the contrary, a considerable number are engaged in the general practice of medicine, for example, those employed in the Indian Service of the Department of the Interior. The Indian Service besides maintaining general hospitals and sanatoria ranging from 50 to 250 beds, has a very active outpatient department connected with its hospitals and many of its physicians make home calls, make field trips, conduct school examinations and administer general public health measures among the Indians.

Young physicians may be employed under civil service as far south as Panama and as far north as Alaska. In the Canal Zone, the young physician who is interested in tropical diseases may receive excellent opportunities to study that subject. Civilian physicians in the Canal Zone are appointed mainly for duty in dispensaries and for quarantine work. The dispensary work consists of general practice involving the attending of Government employees and their families, crews and passengers of vessels, etc. The work of quarantine physicians consists of quarantine and immigration inspection of crews and passengers on incoming vessels.

Positions in Alaska under the Indian Service will appeal to young physicians who have an adventurous spirit, as will positions in the Coast and Geodetic Survey, which afford an opportunity for young physicians to spend some time at sea on Coast and Geodetic Survey vessels. The task of physicians employed in Alaska under the Indian Service is a formidable one because of the climate and the remoteness of some of the villages. However, young physicians of robust health who go to that area have an opportunity to render a great service to humanity.

It is in the fields of general practice, tuberculosis, psychiatry, surgery and public health that the largest number of Federal medical officers are engaged. The opportunities for research in these and other fields of medicine are excellent.

Because of the emphasis placed on career service by modern personnel administration, "in-service training" is playing an important part in the life of the young Government physician. In the Veterans Administration, "in-service training" affords opportunities for graduate study. The Veterans Administration operates a large tumor clinic at Hines, Ill., psychiatric clinics at its various hospitals, chest surgery clinics at the tuberculosis hospitals, and at Mt. Alto Hospital, Washington, D.C., it conducts a heart research clinic. These clinics afford excellent teaching opportunities for young physicians.

At St. Elizabeths Hospital, Washington, D.C., fine opportunities for residencies and internships in neuropsychiatry are open to recent graduates of medical schools; these residencies and internships rank among the best in the United States. St. Elizabeths Hospital is under the jurisdiction of the Federal Security Agency.

The functions of medical officers in the Food and Drug Administration of the Federal Security Agency have become of increasing importance since the passage of the Federal Food and Drug Act. Medical officers in the Food and Drug Administration are engaged in a critical review of the labelings of medicines in the light of their composition for the purpose of ascertaining whether or not the therapeutic representations are true or false as judged by a consensus of present-day medical opinion. This work offers excellent opportunities to recent graduates of medical schools who have had, in addition to their regular medical education, experience in pharmacology.

Also of increasing importance have been the medical functions of the Children's Bureau in the Department of Labor. The Child Hygiene Division of the Bureau carries on research and investigation involving fundamental technical medical study of the mental and physical condition of children in relation to heredity, environment, nutrition, and the efficacy of various methods of community health work. There are opportunities in this Bureau for young physicians with special training in pediatrics, obstetrics, or public health procedure, who are interested in extensive research study in connection with maternal and child health and services to crippled children.

In the Public Health Service there are, in addition to the commissioned force, medical officers who are appointed under provisions of the Civil Service Act and rules. These medical officers are appointed as Acting Assistant Surgeons and are usually detailed for local duty in the vicinity in which they reside. From time to time, however, there is opportunity for them to transfer elsewhere. Acting Assistant Surgeons are employed in connection with practically all the activities of the Public Health Service. These include hospital and relief work, quarantine and immigration work, field investigations, and epidemic control duty. The Public Health Service operates marine hospitals and relief stations throughout the United States. The beneficiaries in these hospitals and relief stations consist principally of merchant seamen, officers and enlisted men of the United States Coast Guard and civil employees of the Federal Government injured in line of duty. A considerable number of Acting Assistant Surgeons are assigned to this work.

The services of Acting Assistant Surgeons are utilized at a large number of marine quarantine stations in connection with the inspection of vessels entering the United States from foreign ports, and in connection with the medical examination of aliens entering this country. There are opportunities in the Public Health Service for Acting Assistant Surgeons to conduct investigations pertaining to industrial hygiene, goiter, anthrax, influenza, malaria, pellagra, pneumonia, tuberculosis, typhoid fever, child hygiene and public health administration.

Medical officers are employed in various other Government agencies. Two medical officers in the Government Printing Office are in charge of a small well-equipped hospital in which employees who are injured or become ill while on duty are treated. The Bureau of Engraving and Printing requires the services of a physician for similar duty. The Census Bureau of the Department of Commerce employs physicians who engage in medical statistical study. In the Civil Service Commission a number of medical officers are engaged in medical activities pertaining to Government employment and disability retirement. This activity is a combination of insurance, industrial and administrative medicine and affords young physicians a basic training in these fields which is unique in the United States.

Inasmuch as the Veterans Administration employs more civil service physicians than any other Government agency, it might be well to discuss this agency more fully. The medical service of the Veterans Administration is comprised of regional offices, facilities and diagnostic centers. The term "facility" is applied to various types of field stations, including those which are hospitals only, those which may provide domiciliary care and hospitalization, others which are a combination of regional offices and hospitals, and still others which are a combination of regional offices and homes. Facilities may be primarily designed for general (medical and surgical) service, or for tuberculosis or neuropsychiatric service. However, some have a mixed service which may be a combination of any of the above services.

The diagnostic centers located at Washington, D.C., Hines, Ill, and San Francisco, Calif., were established for intensive study and observation of patients presenting diagnostic problems, and have consultant staffs consisting of physicians with national reputations in their fields. The diagnostic center at Hines, Ill., has one of the largest and most modern tumor clinics in the world.

Small clinics for thorough diagnosis and treatment of malignant growths are located strategically in facilities in New York City, Washington, D.C., Atlanta, Ga., Portland, Ore., and Los Angeles, Calif.

In nine facilities, scattered throughout the country, centers have been created for special chest surgery.

At the Veterans Administration, research is supervised by specially trained physicians on the staff of the Medical Director, and projects are entrusted to physicians having the basic specific qualifications to conduct them.

At the present time, the chances for early appointment of recent graduates of Class A medical schools who have served an approved internship are good in the Government service. Open continuous examinations have been announced by the Civil Service Commission to fill vacancies in the position of Associate Medical Officer. Physicians appointed to these positions in the Veterans Administration have excellent chances for promotion. If their records are satisfactory, they may look forward with reasonable certainty to a step-up in grade and salary within the first two or three years of their service. The cardinal criterion for advancement in the Veterans Administration's medical service is demonstrated ability.

The matter of compensation for services rendered is an important item to consider in discussing opportunities for a medical career in the civil service. The majority of physicians are appointed in the Associate grade and receive a compensation of $3,200 a year minus a 3½ per cent deduction for retirement purposes. The opportunities offered for advancement to $4,600 and $5,600 a year are good, and many physicians who demonstrate that they have administrative ability in addition to a sound medical background may advance to $6,500 and $7,500 a year. A young physician should not expect to accumulate a fortune when choosing a medical career in the Government service; however, he can look forward to a lifetime of adequate remuneration for his service, satisfactory employment hours, and adequate annual and sick leave with pay. He will in addition receive disability and age retirement insurance at a very low rate.

The above items are important, but of course the most important consideration is the opportunity for which every physician is searching, that is, an opportunity to practice his profession and render efficient service to unfortunate human beings. The United States Government offers this career in medicine, surgery, public health, and other specialties which should be of interest to all recently qualified physicians.

Merry Christmas

President's Page

Dear Doctor:

The new Welfare Act, the Civilian Defense, the National Defense, the procurement and assignment of physicians, the question of group insurance for hospital services and medical service are a few of the problems that have to be passed on to the new officers of your Association as this year, 1941, comes to a close.

It has been a real pleasure to serve you this year. I want to thank every member, the committees, and the staff at the headquarters' office for their kind cooperation and help.

Wishing all a Merry Christmas and a Prosperous and Happy New Year, I am,

Sincerely yours,

THE PART OF PHYSICIANS AND DENTISTS IN THE DANGEROUS DRUG PROGRAM

JOHN W. FERREE, M.D., Director Indiana State Board of Health
and
J. C. SCHNEIDER, Chief Bureau of Food and Drugs, Indiana State Board of Health
INDIANAPOLIS

What is the physician's part in the program of eliminating the promiscuous sale and use of dangerous drugs, including barbiturates? His part is very simple and definite and will contribute much toward the success or failure of the program already begun.

The Food, Drug and Cosmetic Act of 1939 states that a drug shall be deemed to be misbranded if it *is dangerous to health when used in the dosage or with the frequency or duration prescribed, recommended, or suggested in the labeling thereof.* Therefore, any drug, regardless of potency, may be considered illegally sold if it is not properly labeled. Broadly interpreted, there are certain drugs which because of their properties might be considered dangerous and thus illegal unless administered under competent advice. In other words, certain drugs may *not* be sold, regardless of label, by anyone except upon a written prescription of a qualified individual, who in this case would be either a physician or dentist. This places a grave responsibility upon the persons who are in the business of distributing drugs and the physicians and dentists who are qualified to diagnose diseases and prescribe such drugs. It would seem, therefore, that in this respect three groups are involved in the protection of public health. The first group is the physician and dentist who diagnose and prescribe; the second group is the distributors, that is the dispensing physician and the pharmacist; and the last is the State Board of Health, which is charged with the enforcement of the law. All three groups must work together if the program is to be successful and the health of the public is to be protected. Neither can get along without the others.

Barbiturates, for example, sodium barbital, phenobarbital and all other barbituric acid derivatives have been deemed to be dangerous by the Federal Food and Drug Administration when sold otherwise than upon prescription following proper diagnosis by a physician or dentist. Outstanding pharmacologists and physicians have indicated that these drugs are dangerous and "habit forming." They have drawn a distinction between drug addiction and drug habit-formation. Habit-formation is a broader and more inclusive term and may be defined as a physical and mental disturbance developed as the result of the repeated action of a drug. As a result of this disturbance the victim feels it necessary to continue the use of the drug, and such continued use acts to his detriment. When deprived of the drug the victim experiences unpleasant mental and physicial reactions, which are ordinarily capable of being dissipated by appropriate doses of the drug. Drug addiction is an intense form of drug habituation. It is ordinarily induced by drugs having a pronounced and readily recognized effect upon the sensorium, but any drugs capable of causing habituation may lead to addiction in susceptible individuals. Barbiturates are in the latter class. The general widespread and indiscriminate use of these drugs has resulted in a definite public health problem. For this reason they are included in the same general category as sulfanilamide, cinchophen and aminopyrine, as being detrimental to the public health unless properly prescribed.

The problem of preventing promiscuous sale was attacked by notifying the pharmacists throughout the state that over-the-counter sales of barbiturates would be considered illegal; therefore, the drug could be sold and distributed by the pharmacists only if the customer presented a physician's prescription. The pharmacists are making every effort to discontinue indiscriminate sale, and all have been informed by means of notices through the mail and through their trade journal that barbiturates are to be sold on prescription only. Now, however, it has been found that dentists and physicians have been lax in furnishing their patients with written prescriptions. Rather, the patient is told to go to the drug store and get a certain number of phenobarbital tablets. When the patient calls at the drug store he is told by the individual behind the counter that he must have a written prescription. The patient of course becomes irritated. Who is to blame and what's to be done?

The promiscuous sale of dangerous drugs in this state and possibly throughout the nation has reached the point where in many instances the health of the public is being menaced. The unsuspecting and gullible public has been taught through various advertising media that self-medication is quite the proper thing and is a money saver. Unfortunately, because of their laxness, some members of the medical profession are condoning this practice. Self-diagnosis and treatment is in most instances dangerous and, when it results in hospitalization and sometimes death, certainly is not real economy. The false economy and dangers accompanying self-medication are well illustrated by some recent statistics pertaining to the lowering of the appendicitis death rate. It is likely that much of the improvement in this instance is due to the

fact that some states now require a warning label to be placed on all cathartics and laxatives—a class of drugs, as we all know, too frequently used when one is coming down with acute appendicitis. This is mentioned because it serves to indicate that the public does attempt to diagnose its own illnesses, and then proceed to treat itself. It also indicates clearly that the public is unaware of the dangers accompanying the taking of a drug whose action it does not understand even though it is offered for unrestricted sale. So it is with the sale of known and potentially dangerous drugs. If a drug can be easily obtained, the public will partake of it freely regardless of the danger involved. In the case of barbiturates there is little doubt regarding their value, but unfortunately the use and sale of these drugs have reached the stage where there is much abuse, not only by the public but by the distributors and the physicians and dentists. Both the pharmacists and the qualified prescribers are aware of the potential dangers involved. Both are in part responsible for the widespread use and abuses. The physician, by verbally instructing his patient to go to the drug store and get a dozen doses of a barbiturate, for instance, has instilled into the minds of the lay public and the pharmacist the idea that the promiscuous use and sale of this drug is safe. What is to be expected from the uninformed public if the professions that are supposed to protect them treat such matters so lightly? Giving verbal instructions rather than writing a prescription is the condonation of self-medication. The medical and dental professions, to the extent they condone self-medication, condone the free and promiscuous use of dangerous drugs.

Either the professions and the individuals responsible for this situation must correct it or drastic legislation, already looming in the horizon, will become a reality. Let us not forget that such legislation does not inconvenience the public as much as it does the profession which is being regulated. Furthermore, this type of legislation is an indication that the professions involved are engaging in a practice inimical to the public good.

The physician, dentist, pharmacist and health department—upon whom the public depends to preserve and protect their health—must work hand in hand to better the present situation. Discontinuance of the promiscuous sale of dangerous drugs, including barbiturates, is one instance where much good can be accomplished. As pointed out earlier, the pharmacist, by requiring prescriptions, has already taken the first step toward improving the situation. The time is now at hand when the physicians and dentists must cooperate in this program. Their part is simple: *write a prescription when barbiturates are indicated.* The *dispensing physician* should make his distribution of drugs, such as the barbiturates, consistent with good medical practice and good public health.

TWENTY-FIVE YEARS AGO

In the scientific section we find an article by T. B. Eastman, Indianapolis, on "Hyperthyroidism and Its Relation to Certain Pelvic Disorders." Murray N. Hadley, Indianapolis, wrote on "The Influence of Modern Immunity Research on Surgery"; C. B. Danruther, Laporte, chose as his subject "The Influence of Modern Immunity Research upon Medicine," and John A. MacDonald and Scott R. Edwards, both of Indianapolis, discussed "Blood Cultures in Epilepsy."

* * *

Editorial discussion presented the question of just how prenatal syphilitic infection occurs, a statement regarding the new Executive Secretary, the question of whether typhus fever might be expected in Indiana, and a chat about full-time health officers.

* * *

Editor Bulson lamented the increasing cost of automobiles, stated that all cars, save Fords, had advanced in price.

* * *

The federal government had found it necessary to curtail some of its publications due to the increasing costs of paper.

* * *

Association dues for 1917 remained at the old figure, $2.00; the increase voted upon at the Fort Wayne session (due to the additional expense of maintaining an Executive Secretary's office) was to take effect in 1918.

* * *

Press reports were to the effect that the chiropractors had raised a $2,000 fund to further their interests in the coming session of the Indiana General Assembly. (For many years these chaps have outdone the medical profession in the matter of supplying the "sinews of war"!)

* * *

San Francisco County (California) had passed an ordinance prohibiting the taking of wearing apparel, household goods, etc., home on approval. This was designed as a health measure, particularly aimed at syphilis, gonorrhea, tuberculosis and some of the contagious diseases. Editor Bulson opined that other communities might do well to enact similar legislation.

* * *

Do you remember "nuxated iron," the advertising of which flooded our newspapers twenty-five years ago? In commenting on this subject Editor Bulson wrote, "The newspaper advertisements on nuxated iron say, 'Consult your doctor and see what he says about "nuxated iron."' It wouldn't be a bad idea for the medical profession to publish a rejoinder to the effect that what most doctors say about 'nuxated iron' would not look well in print."

Rosenow, Towne and Wheeler had announced their belief that a polymorphous Streptococcus, probably gaining entrance to the body via the tonsils, is a causative factor in poliomyelitis.

* * *

Surgical instruments had advanced in price some twenty-five to one hundred per cent, with the probability that many articles could not be procured at any price. Drugs also had shown a marked increase in price, certain drugs being almost wholly off the market—all due to war conditions. (How like the present time!)

* * *

Philip Mills Jones, a trustee of the American Medical Association, had recently died. Dr. Jones also served as editor of the *California State Journal of Medicine.*

* * *

It seems that a prominent Fort Wayne lawyer had taken Editor Bulson to task for some of the shortcomings of the medical profession. He opined that the medical profession should present a more united front in the efforts to stamp out all forms of quackery. In his characteristic style the Editor retorted, "the legal profession should take a little of the advice so freely offered to others, for if there is any profession that requires an uplift and a higher standard it is the legal profession."

* * *

The General Education Board, together with the Rockefeller Foundation, had announced a gift to the University of Chicago for the purpose of founding a medical school. The University and certain private individuals had arranged to add to this fund, the total of which would amount to about fifteen million dollars. It was planned to include the Presbyterian Hospital in the new set-up.

* * *

Isaac N. Cochrane, of Delphi, had died at the Eastman Sanitarium, Indianapolis. Dr. Cochrane will be remembered by many physicians of the present day as an exponent of the highest ideals in medicine.

* * *

Dr. Eli Sherman Jones, of Hammond, was married to Berta Dyer Harold, of Bloomfield, on November 18th.

* * *

Drs. J. B. Maple and J. T. Wrork, of Shelburn, had purchased the practice of Dr. A. J. Nellans, also of that city.

* * *

Bluffton had reported more than fifty cases of typhoid fever during the fall season. The epidemic was attributed to either a carrier, during a street fair or to the insanitary drinking fountains about the city.

* * *

The Tenth District Medical Society had held a meeting in Hammond, the guest speakers being S. J. Young and O. B. Nesbit of Gary, and R. B. Preble and S. E. Sommer of Chicago.

UNDER THE CAPITOL DOME

CRUM "ETHERATOR" DECISION

One purpose of the Indiana General Assembly in enacting the Medical Practice Act many years ago undoubtedly was to protect unfortunate victims of disease from their own credulity, the Indiana Supreme Court said in its decision last month in the now famous Crum "etherator" case.

The Supreme Court, in an opinion written by Judge Curtis G. Shake, took a strong stand against quackery and charlatanism in the Hoosier state. It even went so far as to judicially brand the College of Drugless Physicians, in Indianapolis, where Mr. Crum secured his diploma, as a "diploma mill," putting the expression in quotation marks.

The license of Heil Eugene Crum, it will be recalled, was revoked by the Indiana State Board of Medical Registration and Examination after he was found guilty of "gross immorality." His license was in chiropractic, naturopathy, and electrotherapy. Mr. Crum appealed the state board's decision to the Marion County Circuit Court, which upheld the board's action, and he then appealed to the Supreme Court, again losing.

Mr. Crum operated what the Supreme Court described in its official decision in the case as a "contraption." Mr. Crum had obtained a patent on his "etherator," as he called it. Reviewing the evidence in the trial court, the Supreme Court said that "in view of the overwhelming evidence that the appellant's (Mr. Crum's) contraption had no value in the treatment of diseases, it is reasonable to infer that his purpose in obtaining letters patent was to impress his patients with the thought that the device had some measure of governmental approval."

Mr. Crum, the Supreme Court pointed out, made such extravagant claims for his contraption that they in themselves were enough "to suggest their untruthfulness and brand them as designedly fraudulent." Mr. Crum allegedly claimed that his "etherator" would cure or relieve cancer, blindness, arthritis, nervous disorders, hemorrhoids, abscesses, kidney ailments, stomach disorders, leakage of the heart, skin ailments, ovarian trouble, varicose veins, and tumors. Even other claims were made for the so-called "etherator."

At the trial of his case Mr. Crum produced witnesses who testified that they had been helped or cured by Mr. Crum's "etherator."

But, said the Supreme Court in its decision, "His case is not helped by the fact that he produced numerous witnesses at the trial who voluntarily testified as to miraculous cures that had been brought about by the use of his machine.

" 'Hope springs eternal in the human breast,' and it is not uncommon for persons who are afflicted with dreadful diseases to be misled and beguiled into believing that they have been helped by quacks and charlatans.

"It is reasonable to suppose that by the enactment of the Medical Practice Act, it was the deliberate purpose and intention of the General Assembly to protect such unfortunate people from their own credulity."

The court further said that the summary of the evidence, taken from Mr. Crum's own brief, was sufficient "to justify the trial court in finding him guilty of gross immorality, and that he was utterly unfit to be licensed by the state of Indiana to treat human ills."

MALARIA CONTROL PROGRAM

The Indiana State Board of Health is engaged in a malaria control project in vital defense industries located in several widely separated areas of the state. Dr. John W. Ferree, secretary of the Board, pointed out that potentialities for a malaria outbreak exist. Obviously, he also pointed out, any serious incidence of the disease in defense areas would result in the loss of innumerable manhours of productive employment by persons engaged in work of a defense character, and a proportionate crippling of the defense effort in the affected districts.

In connection with the potentialities of malaria, Dr. Ferree said that three factors exist within the state which would be contributors. They are: (1) There are people within the state who previously have had the disease. (2) The type of mosquitoes which carry malaria exist within the state. (3) Breeding grounds for that type of mosquitoes exist at various places within the boundaries of Indiana, including the defense areas. In the fairly recent past, two serious outbreaks of malaria have occurred in the state, Dr. Ferree pointed out. One was at Terre Haute in 1938, when more than 1,000 cases occurred, and the following year an outbreak occurred at a lumber camp in Lake County.

Malaria control projects are in operation at Fort Benjamin Harrison, the Kingsbury Ordnance Works, near LaPorte, the Jeffersonville United States Quartermaster Depot, the Indiana Ordnance Works and Hoosier Ordnance Plant at Charleston, the Jefferson Proving Ground near Madison, and the Army air base near Fort Wayne. Work is proceeding at all of these projects. The work includes straightening and cleaning of streams, construction of ditches, and similar activities. In the spring, Dr. Ferree said, larvicide will be used at the various potential breeding grounds for malaria-carrying mosquitoes. Dr. Ferree said that it is hoped to get a technician to use the thick blood smear technic to determine the incidence of malaria.

The Health Board Secretary also expressed the hope that physicians will cooperate in every possible way in the malaria control project. Surveys and supervision of the malaria control work is being done by the State Board of Health, with the cooperation of the Public Health Service. One health board engineer and two Public Health Service engineers are devoting full time to the work.

The actual work is being done by Works Project Administration employes. The W.P.A. authorized expenditure of $90,000 of its own appropriation in order to carry out the project for the health agencies.

TULAREMIA SEASON

Opening of the fall and winter hunting season ushered in the tularemia season. But thus far this year the number of reported cases is considerably lower than the number reported for the same period last year. To date, according to records at the office of the Indiana State Board of Health, only fifteen cases had been reported up to November first.

ARTIFICIAL LEG PROJECT

The state's artificial leg project, in cooperation with the WPA, is being resumed under a fund authorization of the State Budget Committee. The state authorization was for $1,300 and WPA will pay out $24,000 for wages and materials. Approximately forty crippled persons have applied for artificial legs since the original project was closed last March, after expiration of a six-year operation under sponsorship of the former Governor's Commission on Unemployment Relief. Fifteen workmen, all of whom wear artificial legs themselves, are to carry on the work at 19 West South Street. The State Department of Public Welfare announces that visitors of the Unemployment Relief Division are to investigate applications to insure that only those who are actually needy and physically capable of wearing artificial legs shall receive them. Medical approval will be required.

DIPHTHERIA OUTBREAK

With an outbreak of diphtheria occurring in Indiana, Dr. John W. Ferree, secretary of the Indiana State Board of Health, has suggested a two-point program to Hoosier physicians.

They are:

(1). That physicians immunize all the children they possibly can reach in their practice.

(2). That when a case of diphtheria occurs in a school, an immediate daily inspection of the students should be inaugurated, and when suspicious symptoms are seen the student having those symptoms should be excluded from school until a diagnosis can be made.

One death from diphtheria had been reported up to early November.

Dr. Ferree pointed out that diphtheria is one of the many contagious diseases which have been slowly subdued by means of preventive medicine. In 1900, there were approximately forty deaths per 100,000 population in the United States caused by diphtheria. By 1940, the rate had been cut to one death per 100,000.

"By taking advantage of all the available control measures, there is no reason why any community should have more than an occasional case of diphtheria, smallpox, or typhoid fever," Dr. Ferree said.

Membership Roster

INDIANA STATE MEDICAL ASSOCIATION—1941

Following is a list of members of the Indiana State Medical Association including the names of all those who were members on November 20, 1941. Membership established after that date could not be included in this issue of THE JOURNAL.

Members who reside in one county and hold membership elsewhere are listed under the counties in which they reside. Names of members who have died during the year do not appear on this list.

The letter (H) following a name indicates that the physician is an honorary member of his local society and of the Indiana State Medical Association.

If any errors are found in this list, please report them to THE JOURNAL, 1021 Hume Mansur Building, Indianapolis. The cooperation of members is urgently requested.

ADAMS COUNTY

Berne

Myron Habegger
D. D. Jones
Amos Reusser

Decatur

S. D. Beavers (H)
James M. Burk
Palmer Eicher
F. L. Grandstaff
G. J. Kohne
C. C. Rayl
W. E. Smith
Harold F. Zwick

Geneva

C. P. Hinchman
C. R. Price

ALLEN COUNTY

Arcola

Arthur J. Roser

Fort Wayne

J. R. Adams
Harry Aldrich
Paul P. Bailey
P. W. Bailey
Jos. H. Baltes
A. C. Bartholomew
J. C. Baumgarten
Karl Beierlein
D. R. Benninghoff
Raymond Berghoff
J. E. Bickel
H. V. Blosser
Theo. R. Borders
G. T. Bowers
Robt. H. W. Brosius
H. O. Bruggeman
Doster Buckner
E. L. Bulson
H. B. Bundrant
Elizabeth Burns
Jessie C. Calvin
D. F. Cameron
W. W. Carey
Ernest R. Carlo
E. L. Cartwright
M. B. Catlett
A. R. Chambers
H. R. Chester
W. R. Clark
John E. Conley
Charles J. Cooney
Beaumont S. Cornell
C. R. Dancer
I. W. Ditton
M. H. Draper
A. H. Duemling
W. W. Duemling
K. C. Eberly
B. M. Edlavitch
L. W. Elston
Ralph W. Elston
Richard W. Emme
W. F. Englebert
C. H. English (H)
Richard E. Estlick
A.N. Ferguson
A. M. Fichman
H. W. Foy
H. W. Garton
W. F. Gessler
N. H. Gladstone
H. E. Glock
Wayne R. Glock
L. K. Gould
Herman G. Haffner
Allen Hamilton
R. L. Hane
K. C. Hardesty
L. P. Harshman
Harry C. Harvey
A. P. Hattendorf
Jay F. Havice
Ruth M. Hoetzer
S. P. Hoffmann
R. E. Holsinger
Don D. Johnston
J. W. Kannel
O. T. Kidder
E. A. King
E. H. Kruse
W. E. Kruse
Emil N. Kveton
Don S. Ladig
G. G. Lenk
J. C. Lill
Maurice Lohman
Albert H. Macbeth (H)
Bertha Goba Macbeth
Edward G. McArdle
T. E. McCabe
G. A. McDowell
D. H. McKeeman
L. S. McKeeman
Edgar Mendenhall
Samuel R. Mercer
Herman A. Meyer
S. C. Michaelis
Carl G. Miller
Mahlon F. Miller
Richard H. Miller
C. F. Moats
G. E. Moats
Arthur E. Moravec
L. W. Mueller
H. L. Murdock
Elmer W. Nahrwold
Carroll O'Rourke
C. B. Parker
Kermit Perrin
Milton Popp
M. F. Porter
Nelson H. Prentiss
Henry Ranke
Lyman T. Rawles
H. A. Ray
B. W. Rhamy
W. B. Rice
Walter J. Rissing
Noah A. Rockey
Juan Rodriguez
D. L. Rossiter
C. J. Rothschild
Harry W Salon
N. L. Salon
A. R. Savage
D. W. Schafer
E. M. Schellhouse
Foss Schenck
M. F. Schick (H)
Ed. H. Schlegel
H. V. Scott
David I. Schwartz
Herbert Senseny
Lawrence Shinabery
John T. Short
E. C. Singer
G. H. Somers
L. E. Somers
A. J. Sparks
Paul L. Stier
A. E. Stoler
John Swanson
R. W. Terrill
Walter Thornton
Philip S. Titus
E. M. Van Buskirk
Walter H. Vance
Metodi Velkoff
J. C. Wallace
S. G. Welty
Kathryn Whitten
Robt. W. Wilkins
A. H. Williams
Leslie Wilson
A. C. Worley
W. C. Wright
A. R. Wyatt (H)
Jas. L. Wyatt
Noah Zehr
E. S. Zweig

Monroeville

S. E. Mentzer (H)
H. E. Steinman

New Haven

C. W. Dahling
D. C. Emenhiser
J. L. Emenhiser
G. A. Smith
Berneice M. Williams

Woodburn

Edward Moser

BARTHOLOMEW COUNTY

Columbus

L. F. Beggs
Jas. W. Benham
M. R. Davis
Walter S. Fisher
P. C. Graham
Robert B. Hart
H. H. Kamman
Geo. W. Macy
H. J. Noyton
Wm. J. Norton (H)
Lyman Overshiner
A. P. Roope
Lotta A. Suverkrup
Dorothy D. Teal
Everett W. Williams
Dewey D. Yoder
Byron K. Zaring

Elizabethtown

O. A. DeLong

Hope

J. E. Dudding
L. D. Reed

BENTON COUNTY

Ambia

W. H. Taylor

Boswell

C. W. Atkinson
H. H. Hubbard
G. G. Morrison

Fowler

W. H. Altier
D. E. Mavity
Verne L. Turley

Oxford

E. E. Parker
Virgil Scheurich

Otterbein

J. E. McCabe

Earl Park

Joseph E. Horton

BOONE COUNTY

Advance

B. E. Lemmon

Jamestown

Frank Riley
Alvin Schaaf

Lebanon

H. A. Beck
John D. Coons
Lyman H. Ellis
L. M. Headley
O. C. Higgins
C. G. Kern
John R. Porter
E. A. Rainey
Wm. H. Spieth
Chas. O. Weddle
Wm. H. Williams
R. H. Wiseheart

Zionsville

L. S. Bailey
O. E. Brendel

Thorntown

Clancy Bassett
Gabe C. Long

Whitestown

R. J. Harvey

BROWN COUNTY

Nashville

B. W. Marshall
Louis R. Crabtree

CARROLL COUNTY

Burrows

Geo. W. Wagoner

Camden

Eva Kennedy
Charles Wise

Delphi

Edgar Bridwell
C. E. Carney
A. C. Clauser
C. C. Crampton

Flora

M. R. Adams
E. H. Brubaker

Rockfield

H. Y. Mullin

CASS COUNTY

Galveston

C. T. Dutchess

Logansport

E. W. Bailey
C. A. Ballard
J. C. Bradfield
Clarence E. Bunge
Thomas L. Cooper
John C. Davis
B. W. Egan
E. L. Hedde
W. R. Hickman
L. J. Hillis
Marian Hochhalter
W. A. Holloway
Earl B. Jewell
Thomas L. Keefe
J. B. Maxwell (H)
M. A. McDowell
Jas. R. McLaughlin
F. T. O'Leary
Earl Palmer
C. L. Rice
Joseph Rubsam
Harry M. Shultz
Otto L. Siewert
Edw. A. Spohn
Milton B. Stewart
F. W. Terflinger
Charles L. Viney
C. L. Williams
Paul D. Williams
P. H. Wilson

Royal Center

Russell Rollins
W. K. Newcomb

Twelve Mile

Donald L. Miller

Walton

E. P. Flanagan

Young America

Daniel E. Lybrook

CLARK COUNTY

Charlestown

David Bottorff
L. E. Hoeck
T. J. Marshall

Henryville

H. L. Shanklin

Jeffersonville

J. H. Baldwin
Ralph Bruner
E. P. Buckley
R. G. Burman
David G Pryor
William M. Varble
Mallory P. Weems
Harold R. Wilber

Sellersburg

Geo. L. Regan

CLAY COUNTY

Brazil

Fred C. Dilley
J. L. Lambert
J. F. Maurer
H. M. Pell
John C. Shattuck
C. C. Sourwine
T. M. Weaver
R. K. Webster

Carbon

J. W. VanSandt

Clay City

Walter Bond
L. C. Rentschler

Cloverland

H. L. Muncie

Coalmont

H. H. Ward

Poland

G. S. Silliman

CLINTON COUNTY

Colfax

M. L. Harshman
W. H. Wisehart (H)

Frankfort

F. A. Beardsley
M. F. Boulden
C. A. Burroughs
A. G. Chittick
C. B. Compton
T. A. Dykhuizen
Alexander Hamilton
G. K. Hammersly
R. A. Hedgcock
W. W. Jones
C. A. Robison
Hollace R. Royster
Benson Ruddell
S. B. Sims (H)
J. A. Van Kirk
B. A. Work

Kirklin

Wm. C. Mount

Michigantown

A. A. Williamson

Mulberry

Nelson B. Combs
J. A. Kent

Rossville

John S. Ketcham

Sedalia

Ivan E. Carlyle

CRAWFORD COUNTY

English

Joseph R. Fouts
N. E. Gobbel

Leavenworth

Henry H. Deen
Guido B. Hammond

Marengo

Jesse Benz

DAVIESS-MARTIN COUNTIES

Burns City

E. T. Baumgart

Elnora

Mac Guyer Porter (H)

Loogootee

Emory B. Lett
J. W. Strange

Odon

I. E. Bowman
Jerome DeMotte

Plainville

D. H. Swan

Shoals

G. M. Freeman
J. S. Gilkison
Karl G. Helm
E. E. Long

Washington

N. Maude Arthur
Arthur G. Blazey
B. O. Burress
V. J. Chattin
Henry G. Coleman
C. P. Fox
Clair Ingalls
Wendell C. Kelly
H. B. Lindsay
Jack McKittrick
Wm. O. McKittrick
S. L. McPherson (H)
A. A. Rang
E. Brayton Smoot
H. C. Wadsworth

DEARBORN-OHIO COUNTIES

Aurora

Wm. F. Duncan (H)
J. K. Jackson
J. M. Jackson
C. W. Olcott
O. H. Stewart
James F. Treon
E. R. Wallace

Dillsboro

E. O. Hoffman

Guilford

John C. Elliott

Lawrenceburg

E. P. Drohan
A. T. Fagaly
Wm. J. Fagaly
Edwin L. Libbert
J. M. Pfeifer
G. F. Smith

Rising Sun

Robert M. Ferguson
Gordon S. Fessler

DECATUR COUNTY

Adams

M. A. Tremain

Clarksburg

John E. Fisher

Greensburg

P. C. Bentle
W. C. Callaghan
H. S. McKee
Boyd L. Mahuron
C. C. Morrison
J. T. Morrison
Charles Overpeck
E. T. Riley
I. M. Sanders
B. S. White (H)

Letts

D. D. Dickson

Millhousen

J. W. Herr

St. Paul

H. E. Harkcom

Westport

Chas. Wood

DEKALB COUNTY

Auburn

L. N. Geisinger
D. M. Hines
A. V. Hines
Harold Nugen
J. A. Sanders
Bonnell M. Souder
C. S. Stewart (H)
Willard W. Swarts

Butler

Clayton B. Hathaway
Chas. Weirich

Garrett

M. E. Klingler
R. A. Nason
D. M. Reynolds
Russell P. Reynolds
J. W. Thomson
T. P. Walsh

Waterloo

E. A. Ish
J. P. Showalter

DELAWARE-BLACKFORD COUNTIES

Albany

K. E. Puterbaugh

Daleville

J. R. Hurley
O. Arnold Tucker

Eaton

G. F. Ames (H)

Gaston

Fred Langsdon

Hartford City

Wendell W. Ayres
Geo. H. Dando
James Dodds
J. W. Morris
Guy A. Owsley
Robert W. Owsley
Bryce P. Weldy
L. E. Werry

Montpelier

T. J. McKean
F. M. Reynolds

Muncie

Clay A. Ball
Roscoe H. Beeson
Margaret F. Benjamin
Henry E. Bibler
E. V. Boram
Chas. L. Botkin
John H. Bowles
Karl T. Brown
Rollin H. Bunch
R. M. Butterfield
E. H. Clauser
J. H. Clevenger
R. E. Cole
Donald A. Covalt
Nila Covalt
H. A. Cowing (H)
Elmer T. Cure
E. C. Davis
O. M. Deardorff
Wm. Deutsch
F. W. Dunn
L. C. Garling
O. A. Hall
T. R. Hayes
Raymond A. Henderson
F. E. Hill (H)
Howard E. Hill
Robert Hill
Anson Hurley
A. T. Kemper
F. E. Kirshman
Jules La Duron
Joseph L. Larmore
C. A. Leatherman
R. M. McMichael
Thos. J. Mansfield (H)
L. R. Mason
W. J. Molloy
L. G. Montgomery
George Moore
Paul D. Moore
W. C. Moore
Thos. R. Owens
Wm. J. Quick
A. C. Rettig
M. G. Schulhof
J. C. Silvers
J. M. Silvers
Jas. S. Smith
M. P. Smith
O. E. Spurgeon
B. W. Stocking
C. J. Stover
E. F. Tindal
Robert Turner
Kemper N. Venis
Elaine M. Vlaskamp
L. O. Walters
John H. Williams
Amelia T. Wood
Gerald S. Young

Yorktown

Frank T. Kilgore
M. J. Moss

DUBOIS COUNTY

Ferdinand

H. G. Backer
A. F. Gugsell

Huntingburg

Waverly D. Bretz
H. C. Knapp
E. G. Lukemeyer (H)
L. C. Lukemeyer
S. L. McKinney
E. F. Steinkamp
Harvey Stork

Ireland

L. B. Johnson (H)

Jasper

Paul J. Blessinger
J. F. Casper
John P. Casper
M. C. Heck
St. John Lukemeyer
Leo A. Salb

ELKHART COUNTY

Bristol

Richard G. Horswell
E. G. Neidballa

Elkhart

R. L. Bender
G. E. Bowdoin
R. A. Bowman
Walter A. Compton
L. M. Dedario
Fred N. Dewey (H)
L. A. Elliott
C. F. Fleming
Justus M. Fleming
Geo. W. Grossnickle
A. W. Hull
M. F. Hunn
Arthur W. Kistner
John W. Kistner
Elmer G. Koehler
W. C. Landis
Milo O. Lundt
I. J. Markel
H. N. McKee
S. T. Miller
Allen A. Norris
William A. Paff
Vernon K. Pancost
G. B. Patrick
H. M. Pickard
H. C. Schlosser
M. Maywood Sears
Walter Allen Stauffer
R. B. Stout
L. Forest Swank
Lucretia R. Swank
L. F. Swihart
D. D. Todd
K. W. Vetter
S. C. Wagner
Jas. A. Work

Goshen

H. Clair Amstutz
Cecil K. Bender
Robert S. Bolin
H. P. Bowser
Ida L. Eby
F. M. Freeman
W. R. Kelly
M. K. Kreider (H)
Herbert K. Lemon
Floyd S. Martin
Malcolm E. Miller
W. B. Page
L. H. Simmons
H. E. Vanderbogart
Albert C. Yoder
Ralph H. Young

Middlebury

M. A. Farver
Ernest Bernard Norris
Melvin Teters

Millersburg

L. H. Chandler
P. S. Connell

Nappanee

Henry Defrees (H)
Melvin Delbert Price
W. A. Price
J. S. Slabaugh
Lotus M. Slabaugh

New Paris

Howard A. Bosler
E. D. Stuckman

Wakarusa

Chas. L. Amick
F. I. Eicher

FAYETTE-FRANKLIN COUNTIES

Brookville

W. A. Foreman
E. M. Glaser
R. E. Glaser
H. N. Smith

Connersville

L. N. Ashworth
Irvin E. Booher
R. H. Elliott
Stanley Gordin
Stanton E. Gordin
Albert F. Gregg
Lester H. Hopkins
W. A. Kemp
J. S. Leffel
George N. Love
H. C. Metcalf
R. D. Morrow
Francis Mountain
H. W. Smelser

Oldenburg

Geo. Obery

FLOYD COUNTY

Galena

E. L. Sigmon (H)

Georgetown

H. K. Engleman

New Albany

A. M. Baker
James W. Baxter
J. W. Baxter, Jr.
S. M. Baxter
C. E. Briscoe
K. H. Brown
Philip Cohn
D. F. Davis
Parvin Davis
Geo. H. Day
W. F. Edwards
W. H. Garner
John P. Gentile
John F. Habermel
W. A. Hall
A. P. Hauss
A. G. Hofferkamp
Chas. P. Leuthart
J. V. Pace
P. R. Pierson
Gretchen I. Polhemus
A. N. Robertson
S. T. Rogers
P. H. Schoen
H. B. Shacklett
Earl M. Spaulding
M. B. Strange
F. T. Tyler
Harry Voyles
Wm. W. Weaver
W. C. Winstandley
M. F. Wolfe

FOUNTAIN-WARREN COUNTIES

Attica

James C. Freed
Albert C. Holley
A. R. Kerr

Lee J. Maris
Abraham Owen
Margaret T. Owen

Covington

J. W. Aldridge
Earl E. Johnson
Simeon Lambright (H)

Hillsboro

E. G. Bounell

Kingman

A. L. Ratcliff
B. J. Smith

Kramer

Clara S. Eirley

Pine Village

Geo. W. Dewey

Veedersburg

C. B. McCord
Jno. B. Owens

Wallace

Hubert M. Rusk

Williamsport

Carl V. Davisson
John S. Hash
G. S. Porter

FULTON COUNTY

Akron

C. L. Herrick
Virgil Miller

Athens

A. E. Stinson

Fulton

F. C. Dielman

Kewanna

L. E. Kelsey
Kenneth Kraning

Rochester

E. V. Herendeen
M. O. King
H. W. Markley
C. L. Richardson
Dean K. Stinson

GIBSON COUNTY

Fort Branch

B. C. Gwaltney
W. F. Morris

Haubstadt

Austin F. Marchand
Edwin V. Marchand

Hazelton

H. M. Arthur

Oakland City

C. M. Clark
John W. McGowan (H)
E. R. Ropp
A. B. Scales
R. W. Wood

Owensville

G. B. Beresford (H)
J. R. Montgomery
Karl S. Strickland

Patoka

M. L. Arthur

Princeton

H. H. Alexander
O. T. Brazelton
John K. Folck
Orville M. Graves
M. P. Hollingsworth (H)
Virgil McCarty
R. S. McElroy
Chas. A. Miller
J. L. Morris
A. H. Rhodes
John D. Winebrenner
W. B. Wood

GRANT COUNTY

Fairmount

Z. T. Hawkins
Glenn Henley
L. D. Holliday

Gas City

Leander H. Conley (H)
Leon J. Garrison
Fred Tavenner

Jonesboro

Russell Baskett

Marion

Charles F. Abell
W. T. Bailey
Grace B. Boyer
Robert F. Braunlin
W. H. Braunlin
V. V. Cameron
E. O. Daniels
G. R. Daniels
M. S. Davis
G. G. Eckhart
L. H. Eshleman
Henry Fisher
Pierre J. Fisher
Max Ganz
H. R. Goldthwaite
A. D. Huff
R. W. Lavengood
M. J. Lewis
John F. Loomis (H)
Eleanor McIlwain
Robert McIlwain
J. D. McKay
H. A. Miller
C. J. Overman (H)
Nettie B. Powell
F. J. Price
Sidney Price
L. L. Renbarger
G. G. Richardson
W. Y. Seymour
Claud E. Skomp
J. H. Stewart
Samuel Weinberg

Swayzee

P. C. King
Wm. S. Resoner

Upland

E. C. Taylor
H. W. Cox

Van Buren

John E. Derbyshire

GREENE COUNTY

Bloomfield

King L. Hull
Mathias S. Mount
H. B. Turner
F. A. VanSandt

Jasonville

Carl M. Porter
Sam Rotman

Linton

Edwin B. Bailey
P. C. Berns, Jr.
W. F. Craft
Rudolph F. Patton
Geo. C. Porter
B. B. Raney

Lyons

Paul A. Jones
J. S. Simons (H)

Newberry

M. Luther Hamilton

Worthington

J. W. Clifford (H)
A. H. Fender
George A. McCoy
George E. Moses

HAMILTON COUNTY

Arcadia

Frank Rodenbeck

Carmel

Ross A. Cooper
C. M. Donahue

Cicero

E. D. Havens
Russell E. Havens
C. H. Tomlinson

Noblesville

J. C. Ambrose
R. F. Harris
H. D. Hill
Sam W. Hooke
Ray W. Shanks
J. D. Sturdevant

Sheridan

J. W. Griffith
A. C. Newby
J. L. Reck
E. M. Young

Westfield

Andrew F. Connoy

HANCOCK COUNTY

Charlottesville

Robert O. Scott

Fortville

Jesse E. Ferrell
Samuel W. Hervey (H)
Hugh K. Navin
Walter F. Ramage

Greenfield

J. L. Allen
Ralph N. Arnold
C. H. Bruner
Chas. Milo Gibbs
Dee D. Gill
Oscar Heller
R. E. Kinneman
L. B. Rariden
James R. Woods

New Palestine

W. H. Larrabee
E. E. Mace
Thomas A. Pierson

Wilkinson

E. R. Gibbs
Charles Titus

HARRISON COUNTY

Corydon

W. E. Amy
Carl E. Dillman

Crandall

G. D. Baker

Elizabeth

Fred Bierly

Lanesville

Edgar W. Murphy

Mauckport

Alfred Mathys

Ramsey

L. F. Glenn

Palmyra, Ind.

Frank May

HENDRICKS COUNTY

Brownsburg

Lloyd E. Foltz
A. N. Scudder

Clayton

Rilus E. Jones

Danville

Mount E. Frantz
Joseph W. Gibbs
J. H. Grimes
Byron Kilgore
W. T. Lawson (H)

North Salem

E. Ray Royer
Oscar Wiseheart

Pittsboro

O. T. Scamahorn

Plainfield

Milo M. Aiken
J. C. Stafford
C. B. Thomas

HENRY COUNTY

Blountsville

Paul Marsh

Knightstown

J. Leo Bartle
E. B. Call
Ralph W. Dreyer
O. H. Rees
John Ivan Waller

Lewisville

Marion R. Scheetz

Middletown

R. D. Arford
Farrol Dragoo
Joseph H. Stamper

Mooreland

W. A. DeFoe

Mt. Summit

L. C. Marshall

Newcastle

R. L. Amos
C. C. Bitler
James G. Bledsoe
Arthur B. Burnett
C. E. Canaday
W. C. Heilman
W. U. Kennedy
H. H. Koons
Homer Life
J. S. McElroy
J. H. McNeill
Robert Spindler
C. E. Thorne
J. A. Tully
Walter C. Van Nuys
E. K. Westhafer
D. S. Wiggins
George Wiggins
W. W. Wright

Shirley

Ralph Wilson

Spiceland

W. S. Robertson

HOWARD COUNTY

Greentown

H. B. Shoup

Kokomo

C. J. Adams
T. J. Bruegge
Elton R. Clarke
T. M. Conley
R. A. Craig
F. S. Cuthbert
G. N. Druley
P. W. Ferry
W. W. Gipe
R. P. Good
W. H. Harrison (H)
W. H. Hutto
John Kimmich
L. R. Knepple
E. F. Kratzer
B. D. Lung
R. E. McIndoo
Will J. Martin
J. A. Meiner
D. A. Morrison
W. R. Morrison
F. N. Murray
Durward W. Paris
L. M. Reagan
H. M. Rhorer
Roger J. Rhorer
R. P. Schuler
R. F. Scott
E. M. Shenk
Jesse S. Spangler
Fred M. Wilson

Russiaville

R. M. Evans
A. H. Miller

HUNTINGTON COUNTY

Andrews

J. R. Ware

Bippus

A. R. Episcopo

Huntington

Harold S. Brubaker
Stanley M. Casey
A. C. Chenoweth
M. G. Erehart
J. B. Eviston
Reuben F. Frost (H)
Paul M. Gray
F. W. Grayston
Wallace S. Grayston
James M. Hicks
R. G. Johnston
Robert Meiser
F. B. Mitman
Grover Nie
G. G. Wimmer

Markle

Halden C. Woods
Arthur H. Northrup

Warren

Claude S. Black
L. W. Smith

JACKSON COUNTY

Brownstown

G. R. Gillespie
D. J. Cummings

Cortland

J. M. Jenkins (H)

Crothersville

Wm. K. Adair
Frank B. Bard
P. A. Kendall

Freetown

T. E. Conner

Medora

Jack E. Shields

Seymour

L. W. Elsner
C. E. Gillespie
Harold P. Graessle
G. H. Kamman
Guy Martin
Harold E. Miller
Louis Osterman
D. L. Perrin
W. H. Shortridge
E. D. Wright

JASPER-NEWTON COUNTIES

Brook

W. G. Pippenger

Goodland

J. F. Openshaw
Ralph H. Ruhmkorff

Kentland

O. E. Glick
W. C. Mathews
Roscoe Yegerlehner

Morocco

G. D. Larrison

Remington

Richard Schantz

Rensselaer

H. E. English
M. D. Gwin
C. E. Johnson
Eugene Schumaker

JAY COUNTY

Dunkirk

E. C. Garber
E. H. Hall
N. L. Heller
Don P. Murray
Jas. T. Oswalt

Pennville

H. J. Hiestand

Portland

A. C. Badders
George Cring
Stanley M. Hammond
O. L. Meyer
Mark M. Moran
J. E. Nixon
W. D. Schwartz
D. E. Spahr
B. M. Taylor

Redkey
Earl P. Cripe

Salamonia
J. J. Kidder

JEFFERSON COUNTY

Hanover
Carl Henning

Madison
L. F. Beetem
A. G. W. Childs
E. C. Cook
Chas. W. Denny
F. C. Denny
Anna Goss
N. A. Kremer
George A. May
W. A. Shuck
E. C. Totten
Oscar A. Turner
S. A. Whitsitt

North Madison
Morris Binder
C. C. Copeland (H)
G. A. Estel
Guy W. Hamilton
O. R. Lynch
James W. Milligan (H)
Francis Prenatt

JENNINGS COUNTY

Butlerville
Martha Moore

Deputy
D. W. Robertson (H)

North Vernon
John H. Green
W. L. Grossman
D. W. Matthews
D. L. McAuliffe (H)
W. H. Stemm (H)
B. W. Thayer

Scipio
W. L. Wilson (H)

JOHNSON COUNTY

Edinburg
J. V. Baker
Lon C. Bice
J. F. Michaels
J. Porter Myers

Franklin
Florence Blackford
Harry Murphy
Walter L. Portteus
O. A. Province
A. W. Records
R. C. Wilson

Greenwood
J. A. Craig
Kenneth I. Sheek
George Tiley
C. E. Woodcock

Whiteland
J. H. Machledt

KNOX COUNTY

Bicknell
Maurice S. Fox
R. H. Fox
E. H. Tade
Guy Wilson

Decker
Loren Hoover

Edwardsport
J. A. Scudder

Sandborn
E. N. Johnson
J. W. Pahmier

Vincennes
R. M. Anderson
P. B. Arbogast
W. A. Bailey
E. W. Beckes
N. E. Beckes
C. L. Boyd
S. L. Carson
R. B. Cochran
M. L. Curtner
E. T. Edwards
V. A. Funk
L. L. Gilmore
Doris Hoffman
M. H. C. Johnson
A. B. Knapp (H)
H. D. McCormick
R. C. Meyer
R. G. Moore
W. K. Nance
E. L. Pollock
S. A. Prather
J. P. Ramsay (H)
D. H. Richards
Helen M. Richards
William Schulze
K. L. Shaffer
E. F. Small
Frederic Spencer

Wheatland
V. R. Lazo

KOSCIUSKO COUNTY

Claypool
H. F. Steele

Leesburg
C. E. Thomas
Everett W. Thomas

Mentone
T. J. Clutter
Dan L. Urschel

North Webster
L. A. Laird

Pierceton
G. N. Herring
Theodore S. Schulat

Syracuse
Fred O. Clark
C. R. Hoy

Warsaw
J. R. Baum
C. C. Dubois
A. C. McDonald (H)
S. C. Murphy
F. M. Nichols
O. H. Richer
Geo H. Schlemmer

LAGRANGE COUNTY

Howe
A. A. Wade

LaGrange
Harry G. Erwin
H. F. Flannigan
J. M. Kercheval
C. H. Schulz

Topeka
W. O. Hildebrand

Wolcottville
B. H. Pulskamp

LAKE COUNTY

Crown Point
Philip H. Becker
J. P. Birdzell
D. E. Gray
W. F. Houk
J. W. Iddings
C. R. Pettibone
Anna G. Seyler
W. H. Troutwine
William D. Weis

East Chicago
G. F. Bicknell
F. F. Boys
Arthur D. Brody
Benj. B. Braun
R. H. Callahan
E. A. Campagna
Edw. H. Carleton
E. R. Cotter
Thos. F. Cotter
A. J. Dainko
Richard J. Dasse
Chas. J. Doneghy
H. C. Ernst
J. C. Fleischer
Alexander Goverchin
Wm. G. Grosso
Robert C. Hamilton
R. S. Hardwick
Wilbur Irish
D. R. Johns
Lazar Josif
Adolph G. Kammer
J. E. Komoroske
G. G. Lapid
Eli Levin
H. L. Maier
Ora L. Marks
D. F. McGuire
J. S. Niblick
Jas. J. O'Connor
L. J. Ostrowski
S. J. Petronella
A. G. Schlieker
Louis Daniel Smith
Paul B. Smith
J. A. Teegarden
J. A. Teegarden, Jr.
Louis L. Teplinsky
Nathaniel VanDorf
Hugh A. Vore
S. G. Zallen
J. M. Zivich

Gary
W. P. Alexander (H)
C. O. Almquist
George D. Anthoulis
Bellfield Atcheson
H. M. Baitinger
W. M. Behn
C. H. Bendler
S. R. Best
L. F. Bills
R. N. Bills
Carl Boardman
Samuel Brady
C. C. Brink
David B. Brown
M. J. Bullard
J. B. Burcham
J. A. Carbone
R. F. Carmody
J. J. Chevigny
Leo K. Cooper
S. H. Crossland
J. B. Cushman
L. J. Danieleski
M. H. Derian
C. A. DeLong
A. J. Dian
J. C. Donchess
J. R. Doty
J. S. Duncan
H. M. English
E. C. Gaebe
G. W. Gannon
Richard Gannon
E. E. Geisel
Antonio Giorai (H)
Adolph Goldstone
Joseph Goldstone
A. F. Gregoline
B. F. Gumbiner
F. A. Gutierrez
A. T. Harris
B. W. Harris
R. M. Hedrick
M. Herschleder
Harry L. Kahan
A. M. Kan
H. F. Kobrak
Geo. J. Kolettis
Julia G. Kuzmitz
Arnold L. Lieberman
T. B. Lorenty
Georgianna Lutz
M. C. Marcus
J. W. Mather
F. J. McMichael
Frank W. Merritt
O. B. Nesbit
H. C. Parker
J. O. Puryear
J. S. Reynolds
P. J. Rosenbloom
H. J. Ryan
L. K. Ryan
Jacob Sagel
J. J. Sala
E. L. Schaible
T. J. Senese
Michael Shellhouse
J. M. Siekierski
E. D. Skeen
Herschel S. Smith
Joseph F. Steininger
Harry R. Stimson
C. M. Stoycoff
D. B. Templin
G. L. Verplank
James P. Vye
A. A. Watts
R. O. Wharton
J. M. White
W. J. White
O. C. Wicks
Robt. N. Wimmer
C. W. Yarrington
P. S. Yocum
G. M. Young

Griffith
Robert T. Hazinski
F. A. Malmstone
Daniel J. Vracin

Hammond
D. A. Bethea
W. M. Bigger
J. T. Bolin
Fred Braginton
Stanley Lee Brown
Wm. A. Buchanan
J. F. Carlo
J. F. Clancy
Arthur V. Cole
G. M. Cook
C. H. Crews
Alice H. Davis
H. W. Detrick
E. L. Eggers
H. W. Eggers
David A. Eisenberg
Ray Elledge
R. A. Elliott
N. K. Forster
F. H. Fox
M. B. Gevirtz
Jno M. Grimes
H. C. Groman
E. C. Hack
A. H. Hansen
H. S. Hicks
W. A. Hornaday
W. H. Howard
Robert Husted
E. S. Jones
R. W. Kretsch
Hedwig S. Kuhn
Hugh A. Kuhn
D. H. Lawler
C. A. McVey
Chas. B. Matthews
R. J. Modjeski
J. B. Morris
Lindsay Morrison
Richard B. Nelson
Louis Nodinger
R. O. Ostrowski
Solomon V. Panares
E. A. Pekarek
C. W. Rauschenbach
A. C. Remich
Donald Rendel
A. W. Rhind
Perry Q. Row
F. G. Rudolph
J. Schlesinger
E. M. Shanklin
James Shanklin
Stanley Skrentny
David H. Stern
S. L. Stern

Hobart
L. E. Dupes
Louis M. Frederick
R. W. Kraft
R. M. May
A. G. Miller

Lowell
Neal Davis

Whiting
O. F. Benz
David W. Bopp
Harry Brandman
John Ferry
Clementine Frankowski
Clifford M. Jones
Joseph E. Kopcha
L. T. Kudele
A. J. Lauer
Jeremiah A. McCarthy
D. H. Rudser
Harry Silvian
Paul C. F. Vietzki
Edmund N. Walsh
L. J. Wisch

LAPORTE COUNTY

Hanna
H. A. Garner

Lacrosse
D. D. Oak

LaPorte
Wendell C. Anderson
Elmer A. Barron
C. E. Burleson
E. F. W. Crawford
C. B. Danruther
R. A. Fargher
R. B. Jones
J. N. Kelly
Robert M. Kelsey
Robert W. Kepler
James Kistler
G. O. Larson
E. E. Linn
W. B. Martin
S. P. Morgan
A. C. Przednowek
W. W. Ross
A. R. Simon
R. F. Wilcox

Michigan City
T. D. Armstrong
Daniel G. Bernoske
E. G. Blinks
Harry A. Briggs
H. L. Brooks
Norman R. Carlson
F. M. Fargher
Palmer R. Gallup
M. D. Gardner
R. A. Gardner
R. A. Gilmore
O. W. Johnson
John T. Kemp
D. J. Kennington
R. L. Kerrigan
Aimee R. Killough
George M. Krieger
Francis J. Kubik
F. V. Martin
Leonard F. Piazza
J. D. Price
Nelle C. Reed
Lawrence M. Robrock
A. L. Spinning (H)
L. E. Stephenson
Frank R. Warren
P. H. Weeks
L. A. Wilson

Rolling Prairie
C. W. Brown

Union Mills
Louis Moosey

Westville
Warren Baker
R. J. Sanderson

LAWRENCE COUNTY

Bedford
L. H. Allen
R. P. Austin
Norman R. Byers
Joseph Dusard
Charles B. Emery
Chas. H. Emery
Frank D. Martin
A. E. Newland
John R. Pearson
H. C. Ragsdale
Morrell E. Simpson
Robt. B. Smallwood
Benj. A. Speheger
Chas. E. Stone
R. E. Wynne

Heltonville
Jasper Cain

Mitchell
James D. Byrns
Bernard P. Gill
James R. Hamilton
W. S. Workman (H)

Oolitic

Claude Dollens

Williams

J. T. McFarlin

MADISON COUNTY

Alexandria

J. L. Carpenter
J. J. Gibson
F. G. Keller
Voris McFall
Anthony E. Otto (H)
George H. Overpeck

Anderson

C. L. Armington
John C. Armington
Robert Armington
M. A. Austin
Kenneth D. Ayres
C. H. Brauchla
Earl E. Brock
J. Paul Chapin
Etta C. Charles (H)
A. W. Collins
E. M. Conrad
Rex Dixon
John C. Drake
A. W. Elsten
A. D. Erehart
John Barton Fattic (H)
H. W. Gante
F. C. Guthrie
Lee Hunt
Thomas M. Jones
B. A. King
Jos. W. King
O. A. Kopp
P. T. Lamey
Sam W. Litzenberger
J. A. Long
Paul L. Long
V. G. McDonald
O. E. McWilliams
Doris Meister
George B. Metcalf
W. M. Miley
Paul Leon Nelson
L. L. Nesbit
D. S. Quickel
John I. Rinne, Jr.
Lloyd Rosenbaum
Guy E. Ross
Clarence V. Rozelle
W. L. Sharp
S. J. Stottlemyer
Julius R. Tracy
Milo C. Wells
G. B. Wilder
F. M. Williams
C. L. Willson
F. B. Wishard
Cecil S. Wright
R. O. Zierer

Elwood

Perry Cotton
J. E. Cullipher
H. W. Fitzpatrick
W. H. Hoppenwrath
W. M. Hoppenwrath
W. A. Laudeman
Monroe L. Ploughe (H)
R. R. Ploughe

Frankton

J. C. Miller
Raymond Russell

Lapel

John I. Rinne

Markleville

D. N. Conner

Pendleton

Wm. D. Hart
Albert T. Jones
H. A. Stellner
F. M. Williams, Jr.

Summitville

Seth Irwin
L. F. Mobley

MARION COUNTY

Beech Grove

Raymond Butler
Young D. Kim
James C. Rhea

Bridgeport

F. L. Hade

Clermont

D. Lee Andrews

Cumberland

Hans August Schulze

Indianapolis

D. S. Adams
H. C. Adkins
Henry R. Alburger
Howard Aldrich
H. R. Allen
E. O. Alvis
Edw. M. Amos (H)
R. J. Anderson
W. S. Ankenbrock
Richard H. Appel
R. L. Arbuckle
Wm. E. Arbuckle
Aaron L. Arnold
Sidney S. Aronson
J. A. M. Aspy
Amil Carl Bach
Max A. Bahr
O. H. Bakemeier
James F. Balch
R. F. Banister
H. M. Banks
M. J. Barry
D. A. Bartley
G. W. Batman
Robert R. Beach
Paul Beard
T. J. Beasley
Norman M. Beatty
H. F. Beckman
R. C. Beeler
L. D. Belden
Henry I. Berger
J. K. Berman
Joseph Bernstein
M. E. Beverland
Charles R. Bird
R. E. Blackford
A. Ebner Blatt
E. F. Bloemker
John J. Boaz
E. F. Boggs
C. B. Bohner
R. L. Boling
George S. Bond
Clga B. Booher
Daniel L. Bower
Don D. Bowers
Geo. W. Bowman
David A. Boyd, Jr.
Floyd A. Boyer
John R. Brayton
George M. Brother
Archie E. Brown
Benj. Abner Brown (H)
David E. Brown
Edward A. Brown (H)
Frances T. Brown
Wendell E. Brown
J. S. Browning
E. H. Brubaker
Walter L. Bruetsch
Robert F. Buehl
Louis Burckhardt (H)
Rose J. Buttz
E. E. Cahal
Hugo M. Cahn
H. F. Call
J. W. Canaday
Irwin Caplin
S. S. Caplin
Wayne Carson
James C. Carter
L. D. Carter
Oren E. Carter
R. S. Chappell
K. K. Chen
Fredk. D. Cheney
C. J. Clark
C. P. Clark
L. J. Clark
W. F. Clevenger
Walter D. Close
R. R. Coble
Hubert Lowell Collins
J. N. Collins
Elizabeth S. Conger
Jos. L. Conley
Chester C. Conway
Glenn Conway
Charles J. Cook
S. J. Copeland
A. C. Corcoran
M. Cornacchione
Thomas A. Cortese
Thomas E. Courtney
C. E. Cox
H. Bailey Cox
Harold M. Cox
K. L. Craft
Helen L. Crawford
F. W. Cregor
Horace E. Crockett
Clyde G. Culbertson
Paul K. Cullen
J. M. Cunningham
John E. Dalton
J. C. Daniel
N. Cort Davidson
George D. Davis
John A. Davis
C. W. Day
John T. Day
Eleanor H. Deal
Michael F. Dean
R. M. Dea min
Blan F Deer
J. W. Deever
C. Bowen DeMotte
J. W. Denny
Dwight DeWeese
W. J. Dieter
Albert M. Donato
W. L. Dorman
Thomas J. Dugan
William M. Dugan
Harold Dunlap
L. M. Dunnina
Robert Dwyer
E. W. Dyar, Jr.
Evanson B. Earp
J. Rilus Eastman
Lyman D. Eaton
J. Wayne Ebert
J. H. Eberwein
Arthur Paul Echternacht
H. L. Egbert
Roy Egbert
C. L. Eisaman
Bert Ellis
John T. Emhardt
John W. Emhardt
L. A. Ensminger
Ralph V. Everly
Jos. T. Farrell
C. Basil Fausset
Chas. E. Ferguson (H)
John W. Ferree
Frank B. Fisk
Harry L. Foreman
Frank Forry
D. W. Fosler
P. J. Fouts
Willis Andrew Fromhold
A. G. Funkhouser
Elmer Funkhouser
R. M. Funkhouser
Paul C. Furgason
S. A. Furniss
William E. Gabe
Euclid T. Gaddy
W. D. Gambill
J. Neill Garber
George J. Garceau
William Garner
John D. Garrett
J. A. Garrettson
W. P. Garshwiler
F. M. Gastineau
W. D. Gatch
Julius H. P. Gauss
Roy A. Geider
C. L. George
Herman Gick
F. E. Gifford
J. E. Gillespie
R. L. Glass
J. L. Glendening
C. S. Goar (H)
H. W. Goss
J. J. Gramling
John W. Graves
Wm. Lennis Green
R. E. Griffith
G. W. Gustafson
Carl Habich
Claude E. Hadden
Murray N. Hadley
Edmund B. Haggard
E. V. Hahn
H. G. Hamer
John G. Hancock
T. A. Hanna
O. P. Hannebaum
R. M. Hansell
A. K. Harcourt
Myron S. Harding
E. H. Hare
A. H. Harold
N. E. Harold
Carl B. Harris
P. N. Harris
C. J. Haslinger
B. F. Hatfield
N. W. Hatfield
S. J. Hatfield
James H. Hawk
H. H. Heinrichs
John D. Hendricks
John W. Hendricks
Russell S. Henry
C. K. Hepburn
A. M. Hetherington
John H. Hewitt
Walter Hickman
James M. Himler
Ulis B. Hine
Don Carlos Hines
Russell Hippensteel
Fletcher Hodges
J. Wm. Hofmann
A. A. Hollingsworth
J. E. Holman
Carl P. Huber
Foster J. Hudson
J. E. Hughes
W. F. Hughes
L. B. Hurt
Paul T. Hurt
F. F. Hutchins
Bernard Hyman
Roy T. Hynes
Henry W. Irwin
Paul G. Iske
F. E. Jackson
G. B. Jackson
J. W. Jackson
J. L. Jackson
H. A. Jacobs
Lewis G. Jacobs
A. S. Jaeger
O. S. Jaquith
A. N. Jay
K. I. Jeffries
W. O. Jenkins (H)
Robert Jewett
C. H. Jinks
N. E. Jobes
T. W. Johnson
Wm. F. Johnson
David E. Jones
M. V. Kahler
Leo Kammen
R. L. Keenan
T. V. Keene
C. H. Keever
V. D. Keiser
Don E. Kelly
J. F. Kelly
Walter F. Kelly
G. F. Kempf
H. R. Kerr
John F. Kerr, Jr.
Jane M. Ketcham
E. N. Kime
Wm. E. King
J. K. Kingsbury
E. F. Kiser
Harry E. Kitterman
Benj. Victor Klain
Geo. Kohlstaedt
Kenneth G. Kohlstaedt
Karl M. Koons
L. H. Kornafel
Bennett Kraft
Herman W. Kuntz
Fred B. Kurtz
Philip L. Kurtz
I. J. Kwitny
Napoleon LaBonte
C. B. LaDine
E. B. Lamb
R. W. Lamb
V. A. Lapenta
Bernard J. Larkin
George F. Lawler
J. K. Leasure
H. L. Leatherman
J. M. Leffel, Jr.
Henry S. Leonard
Leon Levi
J. R. Lewis
Melvin Lichtenberg
M. B. Light
E. O. Lindenmuth
E. L. Lingeman
Goethe Link
J. J. Littell
John W. Little
John W. Little, Jr.
W. D. Little
R. L. Lochry
W. H. Long
Norman S. Loomis
G. C. Lord
J. L. Loudermilk
Oscar D. Ludwig
Emery D. Lukenbill
J. A. MacDonald
D. E. MacGregor
H. S. Mackey
H. L. Magennis
Charles H. Maly
Marlow W. Manion
M. W. Mann
Max R. Mansfield
A. L. Marshall
C. R. Marshall
Loren H. Martin
J. Melvin Masters
R. J. Masters
B. J. Matthews
R. O. McAlexander
James S. McBride
Joseph C. McCallum
D. J. McCarthy
C. H. McCaskey
C. O. McCormick
P. E. McCown
C. B. McCulloch
D. R. McDevitt
E. C. McDonald
Chas. J. McIntyre
A. D. McKinley
John D. McLeay
Walter McManus
F. G. McMillan
Charles McNaull (H)
Ralph J. McQuiston
D. S. Megenhardt
Lyman T. Meiks
A. F. Melloh
C. D. Mendenhall
W. E. Mendenhall
H. O. Mertz
Paul Merrell
H. B. Mettel
A. J. Micheli
H. N. Middleton
J. Don Miller
John R. Miller
Richard C. Miller
Wm. T. Miller
Earl H. Mitchell
R. E. Mitchell
W. P. Moenning
W. F. Molt
B. B. Moore
H. T. Moore
R. M. Moore
Chas. A. Morgan
Herman G. Morgan
Walter P. Morton
R. H. Moser
M. H. Mothersill
J. E. Moutoux
A. E. Mozingo
Lillian B. Mueller
E. B. Mumford
Chas. W. Myers
R. V. Myers
C. A. Nafe
Louis T. Need
A. S. Neely
O. C. Neier (H)
John R. Newcomb
T. B. Noble, Jr.
T. B. Noble, Sr.
H. F. Nolting
O. B. Norman
Wm. H. Norman
H. L. Norris
Mary Alice Norris
Harold C. Ochsner
Thomas A. O'Dell
C. E. Orders
Harry S. Osborne
R. C. Ottinger
F. V. Overman
J. E. Owen

E. E. Padgett
Irvine H. Page
Manley A. Page
Harry Pandolfo
John F. Parker
Portia Parker
Martin T. Patton
G. T. Paulissen
Lyman R. Pearson
A. C. Pebworth
Franklin B. Peck
W. E. Pennington
Erwin Permer
R. J. D. Peters
T. V. Petranoff
B. B. Pettijohn
F. L. Pettijohn
C. A. Pfafflin
Jack E. Pilcher
Jos. B. Quigley
Harry S. Rabb
J. V. Reed
Philip B. Reed
Russell C. Rees
Chas. A. Reid
Simon Reisler
Thos. W. Reul
F. C. Reynolds
Theo. D. Rhodes
Raymond M. Rice
Thurman B. Rice
Arthur B. Richter
J. W. Ricketts
O. W. Ridgeway
J. F. Rigg
E. B. Rinker
J. O. Ritchey
Wayne L. Ritter
Ray Robertson
Clarke Rogers
T. P. Rogers
C. W. Roller
Bernard D. Rosenak
Alex T. Ross
W. B. Rossman
D. Hamilton Row
Geo. S. Row
Karl R. Ruddell
C. L. Rudesill
Ernest Rupel
Byron K. Rust
Martin L. Ruth
C. W. Rutherford
Russell Sage
John A. Salb
Max C. Salb
M. H. Sandorf
C. R. Schaefer
E. W. Scheier
A. J. Schneider
Carl J. Schneider
Ada E. Schweitzer
Albert Seaton
G. W. Seaton
Louis H. Segar
S. Kenosha Sessions (H)
Marion R. Shafer
Francis G. Sheehan
Wm. Shimer
L. L. Shuler
W. A. Shullenberger
O. W. Sicks
C. W. Siekerman
T. N. Siersdorfer
H. W. Sigmond
J. Lawrence Sims
J. W. Sluss
J. H. Smiley
David L. Smith
E. Rogers Smith
Francis C. Smith
Lester A. Smith
Wilbur F. Smith
Byron Snider
R. A. Solomon
Martha C. Souter
J. W. Sovine
C. R. Sowder
Alan L. Sparks
M. J. Spencer
Urbana Spink
Russell J. Spivey
L. W. Spolyar
Carl B. Sputh
James B. Stalker
C. A. Stayton
Brandt F. Steele
Nathan Stern
Geo. C. Stevens
Walter Stoeffler
Alvin T. Stone
Jos. L. Storey
Roy B. Storms
Tyler J. Stroup
J. H. Stygall
Herbert F. Sudranski
John R. Swan
Richard Carl Swan
J. F. Swayne
Dan E. Talbott
F. W. Taylor
Jas. H. Taylor (H)
Merrel H. Taylor
Frank Teague
E. J. Teeter
B. J. Terrell
Ray Tharpe
Hugh K. Thatcher, Jr.
A. A. Thomas
Fred A. Thomas
C. F. Thompson
J. V. Thompson
K. E. Thornburg
Harold C. Thornton
J. R. Thrasher
A. L. Thurston
H. F. Thurston
H. S. Thurston
W. E. Tinney
W. B. Tinsley
C. J. A. Torrella
R. C. Travis
V. F. Tremor
H. M. Trusler
Warren S. Tucker
J. D. Van Nuys
H. A. VanOsdol
C. F. Voyles
J. Thayer Waldo
E. DeWolfe Wales
F. C. Walker
Robert K. Walker
Wesley Conrad Ward
A. P. Warman
J. H. Warvel
E. S. Waymire
John W. Webb
J. O. Wehrman
C. G. Weigand
H. J. Weil
Chas. A. Weller
Joseph L. West
A. F. Weyerbacher
Homer H. Wheeler
J. T. Wheeler
Donald J. White
John M. Whitehead
Irwin W. Wilkens
Luther Williams
E. R. Wilson
Matthew Winters
Wm. Wise
Wm. N. Wishard, Jr.
Donald E. Wood
George Wood
Abram S. Woodard, Jr.
Wm. V. Woods
J. W. Wright
Frederick Wyttenbach
J. B. Young
John M. Young

Lawrence

Robert J. Lewis
K. H. Stephens

New Augusta

E. O. Asher

Oaklandon

E. B. Boyer
Donald W. Brodie
Frank Jennings

Southport

Morris B. Paynter

Wanamaker

George Jones

MARSHALL COUNTY

Argos

Lloyd H. Davis
F. H. Kelly
H. M. McCracken

Bremen

W. D. Buchannan
Homer L. Burke
R. H. Draper
H. D. Tripp

Bourbon

Cova R. Graham
Geo. L. Marshall

Culver

M. D. Baker
C. G. Mackey
Donald Reed
H. H. Tallman

Plymouth

L. D. Eley (H)
C. F. Holtzendorff
C. A. Inks
P. R. Irey
M. O. Klingler
Harry Knott
May Patzer
Reynold Patzer
F. G. Perry
T. R. Possolt
R. Clarence Stephens
L. W. Vore

Tyner

A. A. Thompson

MIAMI COUNTY

Amboy

E. E. Shrock

Bunker Hill

R. E. Barnett

Chili

H. E. Line

Converse

S. S. Frybarger
Fred Malott

Mexico

C. F. Rendel

Miami

James B. Shoemaker

Peru

J. B. Berkebile
E. Lee Burrous
O. U. Carl
B. F. Eikenberry
H. W. Eikenberry
Donald W. Ferrara
S. J. Ferrara
Cloyn R. Herd
Cecil F. Jordan
F. M. Lynn
S. D. Malouf
R. E. Wildman
J. E. Yarling

MONROE COUNTY

Bloomington

F. H. Austin
F. H. Batman
Neal Baxter
R. M. Borland
J. P. Boulware
Walter N. Culmer
Naomi Dalton
R. A. Demotte
Dillon Geiger
H. S. Hepner
D. J. Holland
Phillip Holland
J. E. Luzadder
B. D. Myers
M. F. Poland
R. C. Rogers
Ben R. Ross
Edith B. Schuman
V. Brown Scott
John H. Smith
R. D. Smith
Robert C. Speas
J. N. Topolgus
Frank F. Tourner
W. T. Van Dament
T. L. Wilson
James W. Wiltshire

Smithville

G. L. Mitchell

MONTGOMERY COUNTY

Crawfordsville

T. Z. Ball
G. A. Collett
Thomas L. Cooksey
Fred N. Daugherty
Wemple Dodds
J. B. Griffith
H. A. Kinnaman
Byron N. Lingeman
A. L. Loop
Robt. Millis
Robert R. Pollom
John L. Sharp
Hawthorne C. Wallace
G. T. Williams (H)

Darlington

J. W. Humphreys
Ralph E. Otten

Ladoga

Maurice E. Gross

New Richmond

H. D. Kindell

Waveland

J. S. Noblitt

Waynetown

F. D. Johnson

Wingate

C. B. Parker

MORGAN COUNTY

Martinsville

C. G. Bothwell
H. H. Dutton
Robert Egbert
Leon Gray
Edw. M. Pitkin
M. C. Pitkin
S. P. Scherer (H)
Austin D. Sweet
H. R. Willan

Mooresville

C. W. Comer
J. E. Comer
Kenneth Comer
W. J. Stangle
C. H. White

Morgantown

M. G. Murphy

Paragon

L. M. Hughes

NOBLE COUNTY

Albion

Chas. M. Bowman
W. F. Carver
J. W. Morr
J. R. Nash

Avilla

K. D. Sneary
Wm. Veazey (H)

Cromwell

J. H. Nye

Kendallville

C. B. Goodwin (H)
Richard R. Gutstein
C. F. Hardy
I. H. Lawson
F. W. Messer
C. E. Munk
J. D. Seybert
Archibald A. Southwick
H. O. Williams
S. J. Young

Ligonier

Ralph D. Arnold
J. B. Schutt
W. A. Shobe (H)
Q. F. Stultz

Rome City

August L. Fipp

Wolflake

H. A. Luckey
Robt. C. Luckey

ORANGE COUNTY

French Lick

George R. Dillinger
J. R. Dillinger

Leipsic

G. G. Colglazier

Orleans

Robert E. Baker (H)
Wm. E. Schoolfield
Oscar H. Stewart (H)

Paoli

Ivan A. Clark
Keith Hammond
John K. Spears

West Baden

Clarence E. Boyd
Mart Hassenmiller
H. L. Miller

OWEN COUNTY

Coal City

Boaz Yocum

Freedom

James T. Hazel

Gosport

Chas. E. Stouder
Julia S. Thom

Patricksburg

R. H. Richards

Spencer

M. S. Brown
C. D. Greene
Oren Kay
C. F. Pectol
Robert H. Pierson

PARKE-VERMILLION COUNTY

Cayuga

R. E. Brown
S. C. Darroch

Clinton

Paul B. Casebeer
Ott Casey
W. D. Gerrish
C. M. White
I. D. White
C. M. Zink

Dana

Wm. C. Myers
A. E. Sabin

Newport

J. L. Saunders

Perrysville

W. A. Johnson

Rockville

J. R. Bloomer
T. J. Collings
Jas. R. Cooper
E. H. Dowell
Casper Harstad
H. B. Pirkle
R. A. Staff

Rosedale

C. S. White

PERRY COUNTY

Bristow

S. L. Epple

Cannelton

H. R. Bush
John H. Lee (H)
E. E. Schriefer

Leopold

J. E. Taylor

Tell City
P. J. Coultas
H. S. Dome
David Dukes
Fred C. Glenn
W. T. Hargis (H)
N. A. James
B. V. Lally

Troy
E. R. Snyder

PIKE COUNTY

Petersburg
J. T. Kime (H)
A. R. Logan
Milton Omstead
T. R. Rice (H)

Velpen
D. E. Taylor

Winslow
Lorenzo D. Goodwin
L. R. Miller

PORTER COUNTY

Chesterton
R. H. Axe
J. W. Dale
W. M. Parkison

Hebron
Roscoe P. Blood
W. C. Butman
F. J. Kleinman

Kouts
S. E. Dittmer

Valparaiso
J. C. Brown
Carl M. Davis
Eugene DeGrazia
C. H. Dewitt
A. O. Dobbins
G. R. Douglas
Ralph C. Eades
J. R. Frank
M. B. Fyfe
M. L. Loring
E. H. Miller
Chas. B. Nash
E. H. Powell
Arthur J. Van Winkle
Paul C. Vietzke

POSEY COUNTY

Cynthiana
S. B. Montgomery

Mt. Vernon
W. B. Challman
W. E. Jenkison
F. W. Oliphant
J. R. Ranes

New Harmony
Ernest Oppenheimer
H. E. Ropp

Poseyville
Paul Boren
S. W. Boren
A. L. Woods

PULASKI COUNTY

Francesville
R. J. Ives

Medaryville
C. E. Linton

Monterey
Arthur J. Kelsey

Winamac
Thos. E. Carneal

PUTNAM COUNTY

Bainbridge
Lester W. Veach

Cloverdale
Frederick Dettloff
E. M. Hurst

Greencastle
Charles L. Aker
W. J. Fuson
J. F. Gillespie (H)
W. R. Hutcheson
W. M. McGaughey
Gilbert D. Rhea
Dick J. Steele
George Tennis
Wm. R. Tipton
C. C. Tucker
E. V. Wiseman

Roachdale
L. F. Gwaltney
C. N. Stroube

Russellville
E. E. Richards

RANDOLPH COUNTY

Farmland
Russell B. Engle
Byron Nixon

Lynn
Wayne Harmon
L. E. Jordan
C. E. Martin

Modoc
H. R. Shallenberger

Parker
P. C. Barnard
Harold E. Parker

Ridgeville
Arvin Henderson
C. W. Mullikin
G. H. Schenk

Union City
Leroy B. Chambers
George H. Davis
Dana L. Phipps (H)
L. K. Phipps
Robert W. Reid
Fred Ruby
R. A. Voisinet

Winchester
A. M. Brenner
I. E. Brenner
W. S. Dininger
J. H. Moroney (H)
L. W. Painter
J. S. Robison
P. W. Sparks
V. K. Stoelting

RIPLEY COUNTY

Batesville
J. C. Bigham
J. T. Carney
L. W. Hisrich

Holton
M. F. Daubenheyer

Milan
Lowell G. Hunter
A. A. Whitlatch
Bine Whitlatch
I. A. Whitlatch

Osgood
George S. Row
R. Lee Smith

Sunman
Chas. F. Fletcher
W. C. McConnell

RUSH COUNTY

Carthage
William S. Coleman
G. B. McNabb

Glenwood
W. R. Phillips

Rushville
C. C. Atkins
J. F. Bowen
Donald I. Dean
F. H. Green, Jr.
Lowell M. Green
R. O. Kennedy
H. P. Metcalf (H)
Roy E. Shanks
Charles L. Smullen (H)
Willard C. Smullen
J. E. Walther
E. I. Wooden (H)

ST. JOSEPH COUNTY

Lakeville
John T. How
Louis E. How

Mishawaka
James G. Bostwick
Verna Christophel
W. B. Christophel
W. N. DuVall
Chas. J. Goethals
Leo L. Grzesk
B. M. Hutchinson
F. W. Logan
P. H. Loveless
R. M. McDonald
Jacob Rosenwasser
W. L. Spalding
L. P. VanRie
J. W. Ward
Merle E. Whitlock
H. C. Wurster
M. D. Wygant
B. J. Wyland
Henry J. Zimmer

New Carlisle
J. E. Luzadder, Jr.

North Liberty
John J. Hardy

South Bend
J. A. Abel
Robt. B. Acker
G. B. Allen
R. K. Arisman
E. K. Ayling
W. H. Baker
Morris Balla
S. E. Bechtold
David A. Bickel
P. J. Birmingham
Chas. A. Bishop
Louis C. Bixler
Erwin Blackburn
B. J. Bolka
John C. Boone (H)
C. S. Bosenbury
Harry Boyd-Snee
Robert L. Braunsdorf
Fred W. Buechner
C. F. Bussard
C. S. Campbell
F. R. Nicholas Carter
J. V. Cassady
J. R. Caton
Stanley A. Clark
Wm. H. Clark
George Colip
David H. Condit
H. L. Cooper
R. B. Dugdale
J. A. Duggan
Alfred Ellison
Lester G. Ericksen
Ladislaus Faltin
W. C. Farnham
C. M. Fish
Edson C. Fish
Lawrence F. Fisher
L. L. Frank
DeVon W. Frash
Gladys D. Frith
Louis G. Frith
George Gates
Geo. J. Geisler
M. M. Gilman
A. S. Giordano
Thaddeus Goraczewski
J. M. Gordon
George F. Green
Donald Grillo
Paul E. Haley
Vachelle E. Harmon
H. W. Helmen
M. I. Hewitt
John W. Hilbert
Marion W. Hillman
W. H. Hillman
R. V. Hoffman
Lillian S. Holdeman
R. W. Holdeman
A. D. Huffman
Carroll Hyde
Bernard A. Kamm
Arthur L. Knapp
Kenneth T. Knode
A. A. Kramer
Joseph E. Lang
C. J. Langebahn
Casimir Libnoch
N. S. Linquist
Merrill E. Liston
Martha B. Lyon
M. W. Lyon
C. M. Malstaff
John A. Mart
J. E. McMeel
G. E. Metcalf
W. H. Mikesch
Milo Miller
William E. Miller
H. F. Mitchell (H)
C. A. Mott
Eugene C. Murphy
Josephine Murphy
Thomas B. Pauszek
Andrew Petrass
Harold D. Pyle
Ruth F. Rasmussen
E. L. Rigley
Herman H. Rodin
George M. Rosenheimer
Carl J. Rudolph
Isadore Sandock
Harry H. Sandoz
Louis A. Sandoz
C. E. Savery
K. E. Selby
C. M. Sennett
R. L. Sensenich
H. B. Shedd
P. G. Skillern
R. W. Spenner
A. M. Sullivan
C. C. Terry
Ray H. Thomas
Maurice J. Thornton
P. C. Traver
W. G. Wegner
J. L. Wilson

Walkerton
C. D. Linton

SCOTT COUNTY

Austin
C. R. Bogardus

Scottsburg
T. N. Hill
Marvin McClain
Floyd Napper
J. P. Wilson

SHELBY COUNTY

Fairland
R. N. Nigh
M. M. Wells

Flat Rock
J. A. Davis

Morristown
Emil G. Grove
M. Maisoll Newhouse
V. C. Patten

Shelbyville
F. E. Bass
R. W. Gehres
Jewett Hord
L. F. Hulsman
Herbert Inlow
W. D. Inlow
C. Fred Inlow
Samuel Kennedy
H. D. Miller
P. R. Tindall
W. R. Tindall
W. W. Tindall
O. R. Wilson

Waldron
S. B. Coulson
J. E. Keeling

SPENCER COUNTY

Chrisney
C. L. Springstun

Dale
John H. Barrow

Lamar
N. L. Medcalf

Richland
W. P. Jolly

Rockport
K. C. Atchison
Eva J. Buxton (H)
C. D. Ehrman
J. C. Glackman, Jr.

St. Meinrad
V. V. Schriefer

STARKE COUNTY

Hamlet
J. L. DeNaut

Knox
J. F. DeNaut
J. R. Matthew

North Judson
Albert Fisher

STEUBEN COUNTY

Angola
M. M. Crum
L. L. Eberhart
W. H. Lane
O. H. Swantusch
W. F. Waller

Ashley
W. A. Van Nest

Fremont
B. A. Blosser
Ralph Hippensteele

Helmer
R. D. Denman

SULLIVAN COUNTY

Carlisle
J. S. Brown
Charles E. Whipps

Dugger
E. M. Deputy
F. M. Dukes

Fairbanks
H. E. Bland

Farmersburg
Harry O'Dell
J. T. Oliphant

Hymera
C. W. Asbury
C. U. Thralls

Shelburn
J. H. Wrork

Sullivan
Marion H. Bedwell
J. M. Billman (H)
C. F. Briggs
E. M. Corbin
James H. Crowder
J. R. Crowder
Paul Higbee
J. B. Maple
G. D. Scott
Irvin H. Scott
W. N. Thompson (H)

SWITZERLAND COUNTY

Patriot
Katherine Jackson

Vevay

Fred C. Bakes
L. H. Bear
George W. Copeland
R. M. Copeland (H)
Geo. E. Ellerbrook

TIPPECANOE COUNTY

Colburn

Robert H. Wagoner

Dayton

E. E. Hamilton

Lafayette

C. H. Ade
Mary Ade
J. L. Arbogast
A. C. Arnett
A. J. Bauer
R. H. Bayley
Harry Buhrmester
R. R. Calvert
Ira Cole
W. T. Cox
A. B. Coyner
F. S. Crockett
G. R. Donahue
M. J. Eaton
Russell A. Flack
M. G. Frasch
O. E. Griest
A. W. Hadley
L. E. Harris
G. W. Herrold
L. J. Holladay
F. P. Hunter
Charles Hupe (H)
R. G. Ikins
H. E. Klepinger
Manson M. Lairy (H)
H. J. Laws
Guy P. Levering
F. A. Loop
F. A. Loop, Jr.
H. G. Martin
D. C. McClelland
D. H. McKinney
Adah McMahan
John S. Morrison
K. O. Neumann
Alfred Olsen
Samuel Pearlman
F. W. Peyton
Frank W. Ratcliff
Wm. M. Reser (H)
F. T. Romberger
C. H. Rommel
E. B. Ruschli
P. H. Schmiedicke
J. W. Shafer
L. O. Sholty
L. C. Smith
C. B. Southard
Edward Stahl
Harold J. Stoen
J. W. Strayer
H. N. Swezey
G. A. Thomas
C. J. Trout
Geo. R. Tubbs
E. L. Van Buskirk
Earl VanReed
C. M. Wray

West Lafayette

H. H. Ash
J. C. Burkle
Louise J. Meikle
S. J. Miller
Bertha Rose

Romney

O. L. McCay
E. T. Mitchell

West Point

Ramon B. DuBois
Calvin L. Rowland

TIPTON COUNTY

Kempton

Albert E. Stouder

Sharpsville

W. F. Tranter

Tipton

A. E. Burkhardt
B. A. Burkhardt
J. V. Carter
H. E. Grishaw
G. H. Warne

Windfall

B. V. Chance
Stanley M. Cotton
H. L. Ericson
E. B. Moser

VANDERBURGH COUNTY

Evansville

R. R. Acre
A. E. Allenbaugh
C. S. Baker
Herman Baker
J. S. Baker
I. C. Barclay
Bruce H. Beeler
Frank L. Bigsby, Jr.
Stella Boyd
S. L. Bryan
C. R. Buikstra
John J. Cacia
John L. Cassidy
Grace Caufman
A. F. Clements
Wm. M. Cockrum
William L. Cole
W. H. Coleman
Herman Combs
John H. Combs
Pearl B. Combs
Earl Conover
Albert L. Crane
Paul D. Crimm
C. W. Cullnane
W. L. Daves
W. R. Davidson
E. K. Denzer
H. S. Dieckman
W. S. Ehrich
Sidney J. Eichel
W. W. Eichelberger
J. A. Eisterhold
Edw. L. Engel
Henry J. Faul
Dallas Fickas
W. H. Field
E. L. Fitzsimmons
Wm. G. French
John H. Hare
F. Minton Hartz
Wm. F. Healy
Jos. M. Heberer
C. C. Herzer
Warren W. Hewins
J. N. Jerome
G. C. Johnson
Stephen L. Johnson
H. M. Kauffman
R. L. Kleindorfer
Shirley C. Lang
C. S. Laubscher
Clarence Laubscher
Joseph C. Lawrence
Chas. F. Leich
Jesse R. Logan
Harold D. Lynch
Paul Lynch
J. H. McCool
W. E. McCool
J. D. McDonald
Walter McDowell
Leonard K. McMurtry
C. G. Macer
H. H. Marks
Rudolph A. Mehl
K. T. Meyer
Milton Miller
Minor Miller
Robert J. Miller
Victor H. Mino
Chas. E. Moehlenkamp
Marion Morgan
Adeline F. Muelchi
Henry Nenneker
A. E. Newman
Walter Pollard
Julian Present
Willis L. Pugh
A. W. Ratcliffe
Isador Raphael
Bernard Ravdin
Marcus Ravdin (H)
Clarence E. Reich
T. F. Reitz
J. S. Rich
Clifford Richey
Earl U. Robinson
Geo. M. Royster
R. A. Royster
H. C. Ruddick
Chas. P. Schneider
Chas. L. Seitz
Robert A. Smithson
W. R. Springstun
Harmon L. Stanton
O. C. Stephens
F. C. Stewart
Urban Stork
Chas. C. Sutter
Daniel C. Tweedall
Daniel G. Tweedall
G. B. Underwood
Victor Varner
Robert W. Viehe
John W. Visher
Edgar H. Weber
H. G. Weiss
J. Y. Welborn
Mell B. Welborn
Wm. M. Wilhelmus
Charles F. Willis
J. H. Willis
George Willison
Ralph Wilson
S. W. Wishart
Wm. H. Wood
J. F. Wynn
C. W. Yeck
P. E. Yunker
Harold Zimmerman

VIGO COUNTY

New Goshen

J. B. Loving

Prairie Creek

Rudolph F. Patton
J. R. Wilson

Riley

Virgil French
Norman Silverman

Seelyville

C. S. Carmichael

Terre Haute

O. O. Alexander
Orris T. Allen
W. C. Anderson
W. D. Asbury
E. R. Baldridge
W. O. Baldridge
H. L. Bernheimer
Curtis Bland
Leon L. Blum
M. J. Bohannon
Henry W. Bopp
Stephen C. Bradley
Paul J. Bronson
A. L. Cabell (H)
G. C. Carpenter
A. W. Cavins
Chas. N. Combs
Stuart R. Combs
G. C. Congleton
J. J. Connelly
W. G. Crawford
O. G. Cruikshank
Claude A. Curry
J. E. Dailey
H. B. Decker
L. J. Dugan
G. W. Dyer
Eugene Eisenlohr
D. H. Forsyth
J. E. Freed
J. O. Garrigus
D. A. Gerrish
Ivan Gilbert
John R. Gillum
Edwin F. Gray
R. G. Harkness
E. R. Haslem
John R. Haslem
D. A. Hoover
J. J. Hoover
Edgar J. Hunt
W. B. Hunt (H)
B. M. Hutchings
Joseph Kunkler
Wm. C. Kunkler
C. Russell LaBier
Clarence R. LaBier
A. H. Lee
W. L. Lowenstein
C. L. Luckett
Chas. L. Mahoney
L. A. Malone
Don M. Mattox
E. L. Mattox
E. C. McBride
Noel S. McBride
F. G. McCarthy
W. C. McCormick
D. B. Miller
Albert M. Mitchell
H. M. Mullikin
G. G. Musselman
E. O. Nay
E. S. Niblack
Robert W. Oliphant
H. J. Pierce
James V. Richart
Floyd Riggs
Milton M. Rubin
F. E. Sayers
Edw. J. Schott
Etta B. Selsam
V. A. Shanklin
Louis Siebenmorgen
I. H. Sloss
S. A. Smoots
James Spigler
O. R. Spigler
W. E. Stewart
Daniel S. Strong
John M. Sullivan
F. A. Tabor
M. C. Topping
D. R. Ulmer
Arnold Utterback
C. R. Van Arsdall
M. B. Van Cleave
H. R. Vandivier
Frank L. Wedel
J. H. Weinstein
F. E. Wiedemann
Fred Wilson
Charles Wyeth
J. Rudolph Yung
E. T. Zaring
Paul F. Zwerner

WABASH COUNTY

LaFontaine

Robert McKay
J. L. Walker

North Manchester

G. K. Balsbaugh
O. G. Brubaker
Joy F. Buckner
L. Z. Bunker
Lucille Carman
Chas. E. Cook
I. E. Perry
G. W. Seward
J. L. Warvel (H)

Roann

James G. Kidd

Urbana

H. P. Parker

Wabash

Edgar K. Black
L. E. Jewett
Minnetta Jordan
G. M. LaSalle
R. M. LaSalle
R. A. Naugle
E. D. Pearson
Wm. Pearson
Arthur P. Rhamy
Lorin Siegemunen
A. J. Steffen
N. H. Thompson
F. M. Whisler

WARRICK COUNTY

Boonville

Bowen Hoover
DeWitt Loomis
C. L. Luckett
J. T. Samples
W. C. Stover
Paul Wilson

Elberfeld

J. H. Gabhart
L. S. Taylor

Newburgh

Chas. M. Wilhelmus
Ralph E. Zwickel

Tennyson

C. E. Springstun

WASHINGTON COUNTY

Campbellsburg

Thos. K. Tower

Pekin

Wm. L. Green
Philip L. Mull

Salem

Donald Colglazier
Irvin Huckleberry
J. I. Mitchell
Claude B. Paynter
L. W. Paynter

WAYNE-UNION COUNTIES

Cambridge City

Marion E. Clark
Paul G. Hill
C. E. Kenyon
Jos. N. Study (H)

Centerville

W. M. Barton

Dublin

D. L. Lutes

Fountain City

Leon T. Cox

Hagerstown

Chester A. Marsh
Wm. Miller

Liberty

Franklin T. Dubois
James F. Lewis
W. B. McWilliams
W. A. Thompson

Richmond

Hubert E. Allen
W. E. Ballenger
Paul W. Blossom
C. S. Bond (H)
F. P. Buche
J. C. Clawson
Frank H. Coble
E. C. Denny
Paul E. Dingle
Volney N. Fackler
V. C. Griffis
Harvey Hadley
F. E. Hagie
Carl Harmon
Gladys H. Harmon
George R. Hays
R. L. Hiatt
Curtis R. Hoffman
E. E. Holland
C. J. Hufnagel
Gayle J. Hunt
George B. Hunt
Paul S. Johnson
F. E. Keith
Jos. H. Kinsey
F. W. Krueger
Russell Malcolm
S. C. Markley
Elwood J. Meredith
Paul S. Pentecost
C. L. Poston
H. P. Ross
L. F. Ross
Paul H. Salmond
Hugh Shane
Allen Stamper
W. R. Taylor
Wm. C. Vance
Horace Wanninger
E. B. Weinstein
Arthur J. Whallon
Mary Wickens
A. M. Winklepleck
G. H. Wisener
M. W. Yencer

WELLS COUNTY

Bluffton

H. D. Brickley
Chas. E. Caylor
Harold D. Caylor
Truman E. Caylor
T. O. Dorrance
Jack L. Eisaman
Max M. Gitlin
O. G. Hamilton
Leonard Long
C. H. Mead
Allen C. Nickel
H. Brooks Smith

Liberty Center

Chas. M. Gingerick

Ossian

E. W. Dyar
W. E. Hardin
R. C. Wybourn

Zanesville

J. L. McBride (H)

WHITE COUNTY

Burnettsville

J. P. Galbreth

Brookston

Charles J. Brockway
G. L. Derhammer

Chalmers

Clyde R. Netherton

Monon

W. W. Houser
S. E. McClure

Monticello

John C. Carney
H. B. Gable
Henry W. Greist
W. V Morris
Elbridge G. Ricker

Wolcott

W. A. Spencer

WHITLEY COUNTY

Churubusco

J. H. Briggs
E. A. Hershey

Columbia City

Otto F. Lehmberg
Arthur Leiter
E. V. Nolt
Benj. F. Pence
O. V. Schuman (H)

Larwill

L. W. Tennant

South Whitley

P. A. Garber
V. P. Huffman
W. Ernest Wilkin

MEMBERS RESIDING OUTSIDE OF INDIANA

C. N. Baganz, Lyons, N. J.....Wells
M. R. Bascomb, Calumet City, Ill.....Lake
G D. Beamer, Brooklyn, N. Y.....Carroll
R. W. Blackford, Detroit, Mich.....Marion
Max E. Blue, Richmond, Ky.....Kosciusko
W. J. Bogue, St. Louis, Mo.....Wabash
Lintner E. Clark, Rouer Hosp., Charleston, S. C.....Del-Blackford
Bernard W. Cohen, Vallejo, Calif.....Marion
Lafayette T. Cox, 2353 N. 72nd St., Wauwatosa, Wis.....Ripley
A. J. Cramp, Ft. Lauderdale, Fla.....Porter
M. P. Cuthbert, Long Island, N. Y.....Howard
Herbert E. Dester, Basnia, via Raipur, C. P., India.....Marion
Joseph Diamondstein, Calumet City, Ill.....Lake
J. F. Dinnen, Cleveland, Ohio.....Allen
Henry Escue, 309 Atlas Bldg., Charleston, W. Va.....Marion
N. C. Folkening, Detroit, Mich.....Marion
Walter Dewey Frey, 200 N. Upper, Lexington, Ky.....Marion
Max D. Garber, Rochester, N. Y.....Kosciusko
John E. Graf, Chicago, Ill.....Marion
A. B. Graham, 817 Kirby St., El Paso, Texas.....Marion
Verne K. Harvey, Bethesda, Md.....Marion
Albert Heard, Detroit, Mich.....Vanderburgh
Chester A. Hicks, Cochran, Ga.....Dubois
Don G. Hilldrup, Baltimore, Md.....Marion
Victor S. Huggins, Gen. Hosp., Cincinnati, Ohio.....Vanderburgh
G. R. Jewett, Lincoln, Nebraska.....Wabash
Charles E. Kincaid, Eau Claire, Wis.....Floyd
Peter Knoefel, Louisville, Ky.....Vigo
H. K. Langdon, Tucson, Ariz.....Marion
Raymond A. Liehr, Penns Grove, N. J.....Lake
J. A. Little, Evanston, Ill.....Cass
H. F. Machlan, Hines, Ill.....Marion
A. W. Marcovich, Chicago, Ill.....Lake
W. J. Marshall, St. Louis, Mo.....Howard
E. L. Mock, Dallas, Texas.....Knox
William McQueen, Sarasota, Fla.....Marion
Lauren Neher, Jerome, Idaho.....Wabash
Robert W. Orr, Detroit, Mich.....St. Joseph
L. E. Pennington, State Hosp., Independence, Iowa.....St. Joseph
V. M. Pennington, Independence, Iowa.....St. Joseph
Jean M. Pilot, 830 S. Michigan Blvd., Chicago, Ill.....Lake
Minerva B. Pontius, Ann Arbor, Mich.....Vanderburgh
Ross W. Rissler, Boston, Mass.....Marion
Lewis C. Robbins, Wichita Falls, Texas.....Monroe
Monroe K. Ruch, Childrens Hosp., Denver, Colo.....Marion
Glen V. Ryan, 913 Broadway, Baltimore, Md.....Marion
Robert B. Sanderson, 1123 Church St., Ann Arbor, Mich.....St. Joseph
Fred F. Shepherd, College Corner, Ohio.....Wayne-Union
S. G. Silverburg, Waco, Texas.....Del-Blackford
Fred C. Smith, Los Angeles, Calif.....Marion
Jos. S. Smith, 1335 Monte Sano, Augusta, Ga.....Hendricks
J. S. Stanley, Youngstown, Ohio.....Lake
Joseph Steininger, Dewey, Okla.....Lake
John R. Surber, 24 W. 55th St., New York City.....Marion
Morris E. Thomas, Passavant Memorial Hosp., Chicago.....Marion
O. N. Torian, Sewanee, Tenn.....Marion
A. M. Targow, Los Angeles, Calif.....Lake
Agatha Wilhelm, Rochester, Minn.....St. Joseph

MEMBERS IN THE MILITARY AND NAVAL SERVICE

Walter J. Aagesen, Fort Benjamin Harrison, Ind.....Madison
Raymond N. Adler, Camp Grant, Ill.....Vanderburgh
Loren F. Ake, Camp Polk, La.....Wayne-Union
F. P. Albertson, Camp Shelby, Miss.....Johnson
Theodore D. Arlook, Fort Knox, Ky.....Elkhart
Charles J. Aucreman, Fort Benjamin Harrison.....Del-Blackford
Robert C. Badertscher, Kelley Field, Texas.....Monroe
Leslie M. Baker, Fort Oglethorpe, Ga.....Del-Blackford
William E. Barnett, Fort Knox, Ky.....Cass
Ralph H. C. Beams, Camp Polk, La.....Grant
Robert D. Berke, Fort Jackson, S. C.....St. Joseph
Lester D. Bibler, San Diego, Calif.....Marion
Russell M. Blemker, Fort Knox, Ky.....Decatur
Asa W. Bloom, Camp Shelby, Miss.....Grant
Richard S. Bloomer, Fort Knox, Ky.....Parke-Vermillion
Norman R. Booher, Fort Benjamin Harrison.....Marion
Clarence G. Bosselmann, Portsmouth, Va.....Allen
Copeland C. Bowers, Fort Benjamin Harrison.....Howard
J. W. Bowers, Fort Benjamin Harrison.....Allen
Roger W. Brookie, Camp Croft, S. C.....Carroll
Robert M. Brown, Camp Shelby, Miss.....Grant
Frank Hanly Burton, Fort Lewis, Wash.....Marion
Francis E. Carrel, Camp Shelby, Miss.....Marion
Herbert O. Chattin, Brookley Field, Ala.....Marion
Wallace E. Childs, Fort Knox, Ky.....Gibson
Benj. B. Cohen, Fort Jackson, S. C.....Lake
Morris Cohen, Camp Polk, La.....Lawrence
Glenn E. Comstock, Camp Shelby, Miss.....Lake
Marion L. Connerley, U. S. Naval Air Station, Quanset Pt., Rhode Island.....Marion
Philip M. Corboy, Great Lakes Training School.....Porter
Harry M. Covell, Fort McClelland, Ala.....DeKalb
Robert E. Daniels, Fort Jackson, S. C.....Adams
Wm. D. Davidson, Fort Knox, Ky.....Vanderburgh
William D. C. Day, San Diego, Calif.....Jackson
A. M. DeArmond, Carlisle Barracks, Pa.....Marion
Gordon A. Dickinson, Fort Benning, Ga.....Pike
Ernest Dietl, Fort Knox, Ky.....St. Joseph
Jack E. Dittmer, Louisville, Ky.....Porter
Thomas Dobbins, Ruston, La.....Vanderburgh
Stephen J. Donovan, Great Lakes, Ill.....LaPorte
J. W. Duckworth, Manila, P. I.....Marion
Melvin Durkee, Fort Knox, Ky.....Vanderburgh
Walter A. Dycus.....Vanderburgh
Stephen R. Ellis, Fort Knox, Ky.....Ripley
Milton W. Erdel, Fort Benning, Ga.....Clinton
Ben Firestein, Camp Wheeler, Ga.....St. Joseph
Kenneth B. Fisher, Fort Benjamin Harrison.....St. Joseph
B. E. Fitzgerald, Patterson Field, Ohio.....Marion
Ray A. Fleetwood, Camp Lee, Va.....Elkhart
J. O. Flora, Fort Benjamin Harrison.....Marion
Chas. J. Folz.....Vanderburgh
James Fuelling, San Diego, Calif.....Warrick
Wm. S. Garner, Fort Hayes,, Ohio.....Marion
William A. Gitlin, Fort Thomas, Ky.....Wells
John C. Glackman, Sr., Denver, Col.....Spencer
Maurice E. Glock, Camp Shelby, Miss.....Allen
Hubert Goodman, Fort Oglethorpe, Ga.....Vigo
Thomas G. Graham, Camp Shelby, Miss.....Tippecanoe
Oliver W. Greer, Fort Knox, Ky.....Marion

John H. Geist, Camp Shelby, Miss. ... Marion
Wait Griswold, Pearl Harbor, Hawaii ... Marion
Hubert Gros, LaCarne, Ohio ... Carroll
Gordon H. Haggard, Fort Oglethorpe ... Bartholomew
Frank M. Hall, Indianapolis ... Tippecanoe
Franklin T. Hallam, Camp Shelby, Miss. ... Marion
Benjamin L. Harrison, Fort Oglethorpe ... Henry
B. J. Harvey, Fort Benning, Ga. ... Tippecanoe
Paul L. Hart, Camp Shelby, Miss. ... Vanderburgh
John J. Hayes, Portsmouth, Va. ... Allen
Everett L. Hays, Parris Island, S. C. ... Marion
Albert H. Held, Norfolk, Va. ... Dubois
George A. Held, Fort Knox, Ky. ... Dubois
Thomas H. Hewlett, Fort Knox, Ky. ... Floyd
John L. Hillery, Fort Oglethorpe, Ga. ... Kosciusko
Claude D. Holmes, Fort Knox, Ky. ... Marion
Will W. Holmes, Spartanburg, S. C. ... Cass
Robert D. Howell, Camp Shelby, Miss. ... Marion
Nathaniel C. Isler, Fort Benjamin Harrison ... Clark
George E. Iterman, Pine Camp, Watertown, N. Y. ... Henry
James E. Jobes, Camp Shelby, Miss. ... Marion
Robert B. Johnson, Fort Thomas, Ky. ... Jennings
Francis P. Jones, Fort Knox, Ky. ... Marion
Sidney A. Kauffman, Fort Jackson, S. C. ... Marion
F. E. Keeling, Camp Shelby, Miss. ... Jay
Frank J. Kendrick, Fort Benning, Ga. ... Lake
Nicholas E. Keseric, Fort Jackson, S. C. ... Lake
John H. Kilmer, Fort Knox, Ky. ... Allen
James M. Kirtley, Fort Benning, Ga. ... Montgomery
Meyer W. Kobrin, Camp Livingston, La. ... Lake
George L. Kress, Camp Grant, Ill. ... Kosciusko
Chester K. Lamber, Fort Benjamin Harrison ... Marion
James L. Lamey, Fort Benjamin Harrison ... Madison
John Lansford, Camp Shelby, Miss. ... Jay
Glen Ward Lee, Selective Service System, Indianapolis Wayne-Union
Ralph U. Leser, Fort Clayton, Panama Canal Zone ... Marion
Ermil T. Leslie, Fort Benning, Ga. ... Vanderburgh
Harold E. List, Detroit, Mich. ... Grant
Wm. M. Loehr, Fort Sam Houston, Texas ... Marion
Leonard C. Lund, Fort Knox, Ky. ... Marshall
Robert E. Lyons, Jr., Fort Knox, Ky. ... Monroe
James W. McEwen, Fort Benjamin Harrison ... Vigo
C. P. McLaughlin, Fort Hayes, Ohio ... Madison
L. M. McNaughton, Spartanburg, S. C. ... Pike
Pierce MacKenzie, San Diego, Calif. ... Vanderburgh
Charles H. Manley, Camp Shelby, Miss. ... Dearborn-Ohio
C. H. Marchant, Fort Knox, Ky. ... Monroe
George W. Marsh, Camp Shelby, Miss. ... Benton
Albert L. Marshall, Jr., Camp Shelby, Miss. ... Marion
Everett E. Mason, Camp Blanding, Fla. ... Vanderburgh
Wm. B. Matthew, Camp Shelby, Miss. ... Marion
Earl W. Mericle, Fort Benjamin Harrison ... Marion
Basil M. Merrell, Camp Shelby, Miss. ... Jackson
Orval J. Miller, Spartanburg, S. C. ... Allen
Robert B. Miller, Fort Benning, Ga. ... Marshall
Irving Mishkin, Fort Benjamin Harrison ... Elkhart
William H. Morrison, Fort Knox, Ky. ... Lagrange
William M. Mount, Camp Shelby, Miss. ... Montgomery
Sydney S. Norwick, Fort Knox, Ky. ... Marion
John H. Oyer, Camp Shelby, Miss. ... Allen
John M. Palm, Fort Knox, Ky. ... Clay
Norman F. Peacock, Fort Thomas, Ky. ... Montgomery
James T. Pebworth, Fort Benjamin Harrison ... Marion
John P. Pennell, Fort Benning, Ga. ... Howard
Harold G. Pettitjean ... Gibson
Dudley A. Pfaff, Camp Shelby, Miss. ... Marion
John R. Phillips, San Diego, Calif. ... LaPorte
Douglas W. Price, Camp Blanding, Fla. ... Elkhart
S. M. Radiovojec, Fort Custer, Mich. ... Porter
Frank B. Ramsey, Camp Shelby, Miss. ... Marion
Hugh S. Ramsey, Fort Oglethorpe ... Monroe
Alden J. Rarick, Petersburg, Va. ... Noble
Roger R. Reed, Fort Knox, Ky. ... Marion
William C. Reed, Camp Shelby, Miss. ... Monroe
Henry H. Reeder, Fort Knox, Ky. ... Clark
John A. Ritchey, Camp Shelby, Miss. ... Grant
Otto F. Rogers, Fort Oglethorpe, Ga. ... Monroe
James R. Rohrer, Fort Knox, Ky. ... Daviess-Martin
Floyd T. Romberger, Jr., Birmingham, Ala. ... Marion
Maurice Rothberg, Fort Oglethorpe, Ga. ... Allen
Harry G. Rotman, Fort Knox, Ky. ... Greene
Milton R. Rubin, Columbia, S. C. ... Lake
William A. Sandy, Territory of Hawaii ... Marion
Richard K. Schmitt, Camp Shelby, Miss. ... Bartholomew
Herbert A. Schiller, Fort Knox, Ky. ... St. Joseph
Ivan W. Scott, Camp Shelby, Miss. ... Marion
Samuel Scott, Columbia, S. C. ... Orange
Herbert L. Sedam, Tullahoma, Tenn. ... Marion
William K. Sennett, Akron, Ohio ... Pulaski
John T. Short, Fort Wayne, Ind. ... Allen
Gerald Shortz, Macon, Ga. ... Noble
Harry Shulruff, Chicago, Ill. ... Lake
William B. Sigmund, Fort Oglethorpe, Ga. ... Bartholomew
Frank G. Sink, Camp Grant, Ill. ... Jasper-Newton
Edward M. Sirlin, St. John, Newfoundland ... St. Joseph
J. S. Skobba, Atlanta, Ga. ... Marion
Crystal R. Slick, Fort Jackson, S. C. ... Randolph
Harry H. Slominiski, Great Lakes, Ill. ... St. Joseph
David H. Sluss, Camp Shelby, Miss. ... Marion
Robert A. Smith, Fort Oglethorpe, Ga. ... Henry
Roy L. Smith, Denver, Colo. ... Marion
Joseph J. Spalding, Hot Springs Nat. Park, Ark. ... Marion
John S. Stanley, Fort Knox, Ky. ... Lake
Peter Stecy, Camp Grant, Ill. ... Lake
Lowell R. Stephens, Fort Oglethorpe, Ga. ... Fountain
Sydney L. Stephens, Fort Jackson, S. C. ... Marion
William R. Storer, Fort Thomas, Ky. ... Lake
W. M. Stout, Camp Shelby, Miss. ... Henry
William E. Sutton, Olympia, Wash. ... Johnson
Howard E. Sweet, Spartanburg, S. C. ... Wayne-Union
Clifford C. Taylor, Houston, Texas ... Marion
Jay W. Thom, Fort McClelland, Ala. ... Owen
Milton E. Tomak, Fort Benjamin Harrison ... Greene
Morris C. Thomas, Fort Knox, Ky. ... Marion
John M. Thompson, Fort Jackson, S. C. ... Marshall
George H. Van Kirk, Spartanburg, S. C. ... Jasper-Newton
Edward C. Voges, Camp Shelby, Miss. ... Vigo
Frederick C. Warfel, Camp Shelby, Miss. ... Marion
John C. Warren, Camp Shelby, Miss. ... Knox
Richard N. Washburn, Camp Shelby, Miss. ... Jasper-Newton
Wm. W. Washburn, Camp Blanding, Fla. ... Tippecanoe
Herman L. Watson, Fort Knox, Ky. ... Vanderburgh
Harvey E. White, Fort Jackson, S. C. ... Morgan
James V. White, Fort Oglethorpe, Ga. ... Vigo
Irving H. Willett, Indianapolis ... Allen
Fielding Priest Williams, Camp Grant, Ill. ... Dubois
R. H. Williams, Fort Eustis, Va. ... Madison
Orley E. Wilson, Fort Custer, Mich. ... Elkhart
Don J. Wolfram, Carlisle Barracks, Pa. ... Marion
John W. Woner, Huntington, W. Va. ... Greene
Opal L. Wood, Fort Oglethorpe, Ga. ... Clay
J. E. Wyttenbach, Macon, Ga. ... Marion
Harold F. Zwick, Fort McClelland, Ala. ... Adams

1942 DUES ARE PAYABLE NOW!

Deaths

Harvey G. Bloom, M.D., of Oxford, died October twenty-third at the age of seventy-one. Doctor Bloom was a graduate of the Miami Medical College, Cincinnati, in 1895.

* * *

Albert D. Mock., M.D., of Marion, died October twenty-fourth aged seventy-six. He was a graduate of the Curtis Physio-Medical Institute, Marion, in 1888.

* * *

Ora E. Throckmorton, M.D., formerly of Battle Ground, died at his home in West Lafayette on October fourth. He was seventy-four years of age. Doctor Throckmorton was a graduate of the Central College of Physicians and Surgeons, Indianapolis, in 1897.

* * *

Harry T. Harter, M.D., of Newtonville, age seventy-two, died October sixteenth at a hospital in Lexington, Kentucky. He was a graduate of the Louisville Medical College in 1898. Doctor Harter was a member of the Spencer County Medical Society, the Indiana State Medical Association and the American Medical Association.

* * *

Thomas J. Stephenson, M.D., of Anderson, died at his home on October fifth at the age of seventy-three. He was a graduate of the Illinois Medical College, Chicago, in 1898. Doctor Stephenson specialized in proctology. He was a member of the Madison County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

Claude Alphonsus Savage, M.D., of Fort Wayne, age forty-eight, died October eleventh. He was a graduate of the University of Louisville School of Medicine in 1922. He was a member of the Allen County Medical Society, the Indiana State Medical Association, and the American Medical Association.

* * *

Lawson Henry Recher, M.D., of Morocco, died at his home on October eleventh at the age of eighty-five. Doctor Recher was a graduate of the University of Michigan Medical School, Ann Arbor, in 1879. He was a member of the Jasper-Newton County Medical Society, the Indiana State Medical Association and the American Medical Association.

* * *

Isaac N. Hatfield, M.D., of Bluffton, died at the Wells county hospital October thirteenth. He was eighty-five years of age. Doctor Hatfield was a graduate of the State University of Iowa College of Medicine, Iowa City, in 1884. He was a member of the Wells County Medical Society, an honorary member of the Indiana State Medical Association, and a member of the American Medical Association.

* * *

John Franklin Downing, M.D., of Muncie, died October eighteenth at the age of sixty-seven. He was a graduate of the Medical College of Indiana, Indianapolis, in 1897. He served in the United States Medical Corps during the World War, and was county coroner for eight years. Doctor Downing was a member of the Delaware-Blackford County Medical Society, the Indiana State Medical Association and the American Medical Association.

News Notes

Dr. B. V. Lally, formerly of Tell City, has moved to Evansville.

Dr. Byron Kilgore, Jr., M.D., formerly of Hobart, has moved to Danville, Indiana.

Dr. Elton R. Clarke, of Kokomo, has been named a member of the Kokomo City Board of Health.

Dr. Curtis Bland, of Terre Haute, has gone to Winter Park, Florida, to spend the winter.

Dr. L. Neff Ashworth and Miss Juanita Adams, of Connersville, were married on October twenty-eighth.

Dr. Frank M. Nichols, of Topeka, Indiana, has become associated with the Warsaw Clinic at Warsaw, Indiana.

Dr. Richard C. Swan, of Indianapolis, and Mrs. Verna L. Thompson, of Lebanon, were married on October twenty-fourth. They will reside in Indianapolis.

The Epworth Hospital, at South Bend, has recently remodeled its physical therapy department.

Dr. Augustus P. Hauss, of New Albany, has been elected president of the Board of Trustees of the Silvercrest hospital.

Dr. C. H. Tomlinson, of Cicero, was recently reelected chairman of the Public Health Council of Hamilton County.

Dr. Norman M. Beatty, of Indianapolis, has been appointed chairman of the Chamber of Commerce Committee on Public Health.

Dr. Frank Green, of Rushville, was chosen as president of the Rush County Tuberculosis Association at a meeting held on October seventh.

Dr. H. F. Flannigan, of Lagrange, has been named County Health Officer to serve the unexpired term of Dr. F. Morse Nichols of Topeka, who has located at Warsaw, Indiana.

Dr. T. R. Rice, of Petersburg, has been appointed as Pike County Health Officer to fill the vacancy created by the resignation of Dr. L. R. Miller of Winslow.

Marvin Levinsohn, alias Martin Davis, who was wanted on a charge of check forgery, was taken into custody on October twenty-seventh at Kansas City, Missouri. At the time of his arrest he was in the act of defrauding a doctor with one of his spurious checks drawn to the order of Staff Sergeant Martin Davis, according to information received from George B. Loy, of the United States Secret Service.

The Epworth Hospital, at South Bend, inaugurated its remodeled physical therapy department on October twentieth. Dr. John S. Coulter, associate professor of Physical Therapy at Northwestern University, was the guest speaker on this occasion and discussed the advances being made in physical therapy.

The American Public Health Association has awarded to Dr. Charles Armstrong, senior surgeon of the United States Public Health Service at Washington, D.C., the Sedgwick Memorial gold medal for distinguished service. Doctor Armstrong was honored for his research work in the transmission of psittacosis, epidemic encephalitis, and infantile paralysis.

SWIFT AND COMPANY NUTRITION FELLOWSHIPS

Charles H. Swift, chairman of the board of directors of Swift & Company, has announced the establishment of a series of fellowships for research in nutrition. The fellowships are intended to aid the Federal government in its long-range national nutrition program.

The fellowships provide for special research to be undertaken in laboratories of universities and medical schools with funds which the company has set aside as grants in aid, beginning November first. The fellowship will be for one year but may be renewed where the project warrants it.

Any fundamental study of the nutritive properties of foods or the application of such information to improvement of the American diet and health will be eligible for consideration for a grant, according to Dr. R. C. Newton, vice-president in charge of the company's research laboratories, who will coordinate the program.

HEALTH EDUCATION CONSULTANTS TO BE ASSIGNED TO KEY DEFENSE AREAS

A vital part of this nation's "all out" defense effort is the safeguarding of its health. The rapid growth in industrial and governmental production has caused unusual concentration of population and increasing health problems. To assist State, county and local health officials in coping with these problems, the U. S. Public Health Service is planning to appoint health education consultants to various defense areas. The positions, paying $2,600 to $3,800 a year, will be filled through the open competitive examination process and the Federal Civil Service Commission has just issued the examination announcement. A written test will not be given, but applicants will be rated on their qualifications as shown in their applications and corroborative evidence.

Appointees will work with local health officers and their staffs, advising them as to methods and procedures of health education such as individual instruction through interview, group instruction through discussions, talks, lectures, and other educational technics. To qualify for the positions, applicants must have completed a four-year college course, including or supplemented by special study —or for the assistant grade, experience—in public health. In addition they must have had experience in public health education work coordinating the activities of all organized health groups in a community for the purpose of promoting a public health program. This experience must have been in a Federal, State, or official local public health department or in a voluntary agency such as the Red Cross, Tuberculosis Association, or the like.

Applications must be filed with the Civil Service Commission in Washington, D. C., not later than December 11, 1941. The examination announcement giving detailed requirements can be consulted or obtained at any first- or second-class post office or at the central office in Washington, D. C.

The Welborn-Walker Hospital, of Evansville, observed its forty-eighth anniversary on October fourteenth. Clinics were held throughout the day. The guest speakers during the afternoon and evening were Dr. Ralph W. Eddy, of Cincinnati, and Dr. Floyd T. Romberger, of Lafayette.

* * *

Dr. John W. Ferree, director of the Indiana State Board of Health, was re-named as a member of the Board of Directors of the Indiana Conference on Social Work at a meeting held in Indianapolis on October thirty-first. Dr. Herman M. Baker, of Evansville, was also re-elected as vice-president.

UROLOGY AWARD

The American Urological Association offers an annual award "not to exceed $500.00" for an essay (or essays) on the result of some specific clinical or laboratory research in urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years.

Essays shall be in the hands of the secretary, Dr. Clyde L. Deming, 789 Howard Avenue, New Haven, Connecticut, on or before April 1, 1942.

NORTH CENTRAL FORUM ON ALLERGY

The Fourth Annual Forum on Allergy will be held in the Statler Hotel, Detroit, Michigan, on Saturday and Sunday, January tenth and eleventh. On the Friday preceding there will be clinics at the University Hospital in Ann Arbor, Michigan, conducted by Dr. John M. Sheldon and the staff. Twenty study groups, any four of which are available to each attending physician, are so divided that those with special interests in medicine will be given continuity in that one series deal with Otolaryngology, Ophthalmology, Pediatrics, Internal Medicine, and Dermatology—each running consecutively. Forty-six physicians will appear on the program.

Special lectures by outstanding authorities; symposia followed by a twenty-minute question and answer period; presentation of patients and a free discussion of their management; charts and educational exhibits; motion pictures and colored transparencies; the results of research; and, finally, an "Information on Allergy, Please?" where any question which has not been answered in the two days may be asked of competent authorities.

The second award of The Forum's Gold Medal for outstanding contributions to clinical allergy will be made this year to W. W. Duke, M.D., of Kansas City, Missouri, who well may be called "the father" of this subject.

Physicians desiring a program or further information may address The Director, Jonathan Forman, M.D., 956 Bryden Road, Columbus, Ohio.

Dr. Wendell Arthur Preston, formerly of Indianapolis, and Miss Marjorie Jean Golden, of Angola, were married at the bride's home on October nineteenth. They will make their home in Lexington, Kentucky, where Dr. Preston is connected with the United States Public Health Service.

Dr. James A. Babbitt of Philadelphia, Pennsylvania, was named president-elect of the American Academy of Ophthalmology and Otolaryngology at its annual meeting in Chicago, October twenty-second. Dr. Ralph I. Lloyd, Brooklyn, is the present president-elect, who will assume office on January first. Awards for the best scientific exhibits were announced and were made in three classifications: For excellence of presentation, Dr. Phillips Thygeson, Presbyterian Hospital of New York, received the award in ophthalmology for his exhibit on infections of the eye and treatment with the sulfonamide drugs; and Dr. Maurice F. Snitman of the University of Illinois, Chicago, the award in otolaryngology for his exhibit on anatomy of the ear, nose and throat. The second classification was originality. The awards for ophthalmology went jointly to Drs. J. Goldsmith and Henry Minsky, of the Mount Sinai Hospital, New York, for their presentations on cataract extraction and a method of studying the inner structures of the eye. In the section on ear, nose and throat the award went to Dr. Paul Holinger of the University of Illinois College of Medicine, Chicago, for his work on a new method of photographing the lower part of the respiratory tract, the tracheobronchial tree and the esophagus. The third group of exhibits were those judged for their teaching value. Awards were given to Dr. Peter Kronfeld of the Illinois Eye and Ear Infirmary, Chicago, for studies of tension within the eye, and to Dr. Henry B. Orton, Newark, New Jersey, for an exhibit on cancer of the larynx.

LIBERALIZATION OF CIVIL-SERVICE EXAMINATIONS FOR NURSES

In January of 1941, the Commission announced an examination to secure Public Health Nurses ($2,000 a year) and Graduate Nurses, General Staff Duty ($1,800 a year) for the Government service. A revised edition of the examination has been issued in which for Graduate Nurse, General Staff Duty, the time limit for graduation from a school of nursing has been increased to fifteen years instead of within the past twelve years.

The new examination Announcement No. 38—Revised, provides that persons over the age limit and those who cannot meet the physical requirements may apply for the examination *if they meet all other requirements of the announcement.* The examination announcements for Junior Graduate Nurse, $1,620 a year (Announcement No. 88 of 1941) and Junior Public Health Nurse, $1,800 a year (Announcement No. 103 of 1941) have also been amended to allow over-age applicants and

those who cannot meet the physical requirements to apply for these examinations. Persons applying under these provisions, if found otherwise eligible, may be appointed for temporary duty ONLY, for the duration of the emergency in the absence of qualified eligibles.

Announcements and application forms may be obtained at any first- or second-class post office or from the Civil Service Commission, Washington, D. C.

The following information is published at the request of the Cancer Control Committee of the Indiana State Medical Association:

MALIGNANT GROWTHS REPORTABLE

The Rhode Island General Assembly has this year enacted the following law, making malignant growths reportable to the State Department of Health.

JANUARY SESSION, 1941—CHAPTER 1014

An Act in amendment of and in addition to Section 15 of Chapter 255 of the General Laws, entitled "Department of Public Health and the Director thereof (now Department of Health and the Director thereof)," as amended.

S. 138. Approved April 9, 1941.

It is enacted by the General Assembly as follows:

"Sec. 15 (B) Any physician knowing or having reason to know that a patient treated or visited by him has cancer, carcinoma, lymphoma, sarcoma, leukemia, or other malignant growths, or any superintendent or other person in charge or control of any hospital or similar institution having in charge or under its care or custody any person suffering with cancer, carcinoma, lymphoma, sarcoma, leukemia, or other malignant growths shall report the same within seven days to the state department of public health, in writing, on blanks furnished by said department as it directs. These reports shall be confidential and not open to public inspection. All persons charged with any duty under this section who shall fail or refuse to comply with the requirements of this section shall be guilty of a misdemeanor and upon conviction thereof be fined not less than $10.00 nor more than $100.00 for each offense."

$75,000 GRANT FROM ROCKEFELLER FOUNDATION WILL FINANCE THREE-YEAR STUDY OF HEALTH AGENCIES IN THE UNITED STATES

The National Health Council, which has served for the past two decades as a clearing house for national voluntary organizations promoting better health, is undertaking a comprehensive study of the activities of all private health agencies in the United States, under a special grant of $75,000 from the Rockefeller Foundation, it is announced by Dr. Kendall Emerson, president of the Council.

"The study will take about three years to complete, and the report will answer such broad questions as the following: What are the various types of state and local voluntary health agencies? What fields do they cover? What methods of cooperation with official health agencies have they established? What do they cost to operate? What types of health work lead to the greatest active participation on the part of the citizens?"

The active members of the National Health Council include the following: American Red Cross, American Public Health Association, American Eugenics Society, American Heart Association, American Social Hygiene Association, American Society for the Control of Cancer, American Society for the Hard of Hearing, Conference of State and Provincial Health Authorities of North America, Maternity Center Association, National Committee of Health Council Executives, National Committee for Mental Hygiene, National Organization for Public Health Nursing, National Society for the Prevention of Blindness, and the National Tuberculosis Association.

There are two associate members, the American Nurses' Association and the Foundation for Positive Health; and there are two advisory members, the United States Children's Bureau, and the United States Public Health Service.

INDIANA UNIVERSITY NEWS NOTES

Dr. Frank C. Mann, Mayo Clinic physiologist, recognized by the profession as one of the outstanding men in his field, appeared at the Indiana University Medical Center Tuesday night (Nov. 18) as the opening speaker in a lectureship in applied physiology supported by the Phi Beta Pi medical fraternity of Indiana University.

Dr. Mann, who was graduated from the Indiana University School of Medicine in 1913 and has been director of the Division of Experimental Surgery and Physiology at the Mayo Clinic since 1914, lectured in the auditorium of the State Board of Health on the Indiana University Medical Center campus. His subject was "The Circulation of the Liver."

Members of the licensed medical profession throughout Indiana attended the lecture and special invitations were issued by the medical school faculty to physiologists in a number of cities in surrounding states. Phi Beta Pi sponsored the lectureship to provide outstanding specialists who are able to bring latest findings in research and experimentation to the Indiana University Medical Center.

Dr. Mann, a native of Decatur, received the B.S. degree from the Marion Normal College in 1907, his A.B. degree from Indiana University in 1911, his M.D. degree in 1913, and his A.M. degree in 1914. He was an assistant in the Department of

Physiology at Indiana University in 1911 and 1912 and in the Department of Clinical Medicine in 1913 and 1914. American associations of which he is a member include those in physiology, pharmacology and experimental therapeutics, experimental pathology, and the American Medical Association. In 1938, the Philadelphia Society of Pathologists awarded him their William Wood Gerhard gold medal. He is a Fellow in the International College of Anesthetists, and is the author of numerous published papers.

The effect of war on public health conditions in England were described by Dr. N. Paul Hudson, chairman of the Department of Bacteriology at Ohio State University, in the feature address of an all-day meeting at Indiana University Friday, November 14, of the Indiana branch of the Society of American Bacteriologists.

Dr. Hudson, who is widely known for his research on viruses and yellow fever, recently returned from a year's study under the Rockefeller Foundation in England and France.

Officers of the Indiana branch include Dr. S. E. Hartsell, Purdue University, president; Dr. P. A. Tetrault, Purdue University, secretary; and Dr. Lyle Weed, Indiana University School of Medicine, program committee chairman.

A pageant was given Saturday afternoon (Nov. 15) at the James Whitcomb Riley Hospital in Indianapolis by children of the Rotary Convalescent Home of the hospital, which that day celebrated its tenth anniversary. Rotary clubs of Indiana contributed $250,000 towards the erection of this unit of the hospital.

In addition to the pageant, short speeches were given by Robert E. Heun of Richmond, who was chairman of the fund-raising committee for the home, and Dr. Carlton B. McCullough, Indianapolis, member of the Riley Executive Committee.

During the ten-year period the home has been in operation, 2,660 patients have been treated.

Society Reports

INDIANA STATE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

November 9, 1941.

Roll call showed the following present: C. A. Nafe, M.D., chairman; E. O. Asher, M.D.; A. M. Mitchell, M.D.; C. H. McCaskey, M.D.; F. T. Romberger, M.D.; A. F. Weyerbacher, M.D.; Albert Stump, attorney, and T. A. Hendricks, executive secretary.

Guests: Nellie G. Brown, chairman, Hospital Service, Indiana Hospital Association; Clarence Hess, and John R. Mannix, head of the Michigan Hospital Service.

Membership Report

Number of members Nov. 8, 1941	3214
(106 honorary members) (162 in service.)	
Number of members Nov. 8, 1940	3181
Gain over last year	33
Number of members Dec. 31, 1940	3192
(90 honorary members)	

The statements of receipts and expenditures for September and October for the association committees and THE JOURNAL were approved.

Treasurer's Office

Sale of Rokeby bonds. The association holds ten $100 units of these bonds and they are being sold for $30.72 per unit.

Annual audit of books. The committee approved the annual audit of the books by the George S. Olive and Company, who have been employed in the past, at a cost not to exceed $100.00.

Purchase of defense bonds. The treasurer is to use his judgment in regard to the exact series of defense bonds that should be purchased.

1941 Annual Session at Indianapolis

Inscription on gavel. This gavel, made of wood from the state constitutional elm, was presented to the state association at the annual session. Suggestion made that an estimate on this work be obtained from Charles Mayer and Company.

Report of Indianapolis Medical Society:

"Total attendance by registration 1890

"The hospital clinics, scheduled on the opening day, Tuesday, September 23, were not well attended. Of seventy-five doctors who indicated their choice of clinics only about twenty-five were in attendance.

"Particular credit should be given the chairmen of the various committees, through whose efforts the various activities of the session, and under the supervision of the local medical society, were arranged and conducted successfully. These men were: Drs. C. L. Rudesill, James Collins, Ernest Rupel, Ben B. Moore, Chester A. Stayton, E. W. Dyar, L. A. Ensminger, Walter F. Kelly, J. K. Berman, Bert Ellis, Harry Foreman, Larue Carter, Jane Ketcham, John Warvel, and E. F. Boggs.

"The Woman's Auxiliary to the Indianapolis Medical Society conducted a successful hobby show, and to them credit is due.

"As chairman of the Arrangements Committee, I have tendered thanks in writing on behalf of the Indianapolis Medical Society to those above who gave considerable of their time to this work. Again we have to thank Tom Hendricks for the major supervisory work in connection with the convention.

Respectfully submitted,
(Signed) Charles F. Thompson, M.D."

The executive secretary was instructed to write a letter of appreciation in regard to the efficient manner in which the local committees handled the state medical association meeting to the secretary

of the Indianapolis Medical Society, to Dr. C. E. Cox, through whom arrangements were made for the stag party at the Murat Temple, and to the officers of the Scottish Rite Cathedral where the annual banquet was held.

1942 Annual Session at French Lick.

Dr . Carl McCaskey, president-elect-elect, and the executive secretary reported upon the conference held at French Lick with Dr. George Dillinger and Stanley Campbell, convention manager of the French Lick Springs Hotel, upon preliminary arrangements for the 1942 meeting.

The following tentative dates were set by the Executive Committee:

Monday, Tuesday and Wednesday, October 26, 27, 28, 1942, or

Tuesday, Wednesday and Thursday, October 27, 28 and 29, 1942,

depending on whether or not the State Board of Health has the health officers' meeting on Monday, October 26. These dates will conflict with the meeting of the Interstate Postgraduate Association but this seems to be the only time in October when the meeting can be held.

The Third District Medical Society and the Orange County Medical Society are to be joint hosts for the meeting. Dr. George Dillinger has been suggested by the Third District Medical Society as general chairman for the meeting. Dr. Dillinger has suggested that the convention committees be appointed on a state-wide basis. The Executive Committee felt that, as local chairman, Dr. Dillinger could name any physicians he desires, not only in the Third District but throughout the state, to serve on the local committees.

Commercial exhibit. The same set-up is to be used at the 1942 meeting as was used in 1940.

Prices on the American plan at the French Lick Springs Hotel may be $1.00 more per day per person because of the increased cost of food.

Mr. Campbell agreed to take at least two more full-page ads. in THE JOURNAL previous to the convention than he took during the last time the meeting was held at French Lick.

Suggestion was made that the stag party be held in the convention hall and that committee rooms be assigned on the first floor for use of convention committees. Special rooms are to be arranged for the president and president-elect.

Legislative, Legal and Social Security Matters

National

Legislative Bulletin No. 10 from A.M.A. Special attention of the committee called to the last page of the bulletin which reads as follows:

"*Social Security Act and Health Insurance.* In connection with proposals to broaden the base of the Social Security Act so as to bring within its coverage certain employees now excluded, such as employees of charitable, scientific and educational associations, domestic help and so on, consideration has apparently been given to the addition of two sections to the act providing for health insurance and for disability benefits.

"Congressional Intelligence, in its October 4 issue of Trends—Administrative—Legislative, reports as follows:

'Broad revision of Social Security Act, outlined previously here, now seems assured after Presidential announcement indicating increased coverage, larger contributions, and possible addition of new types of protection—health and disability. Aside from social benefit factors, present program is to be pushed as anti-inflation move and part of post-war planning.

'Plans also are under way for increased support of so-called poorer States, notably in South, where payments under general program have been lower than elsewhere. This step, long desired by Southern Congressional members, now will have added support of the Administration, but this does not mean opposition will be lacking from other States which already pay larger benefits.

'Generally speaking, revision program should not encounter extreme Congressional trouble, but may run into extensive study to develop best methods of procedure for covering new groups—farm labor, servants, public employees and workers for charitable and non-profit organizations. Chief difficulty here is working out some scheme for farm labor and domestic servants.

'Proposals for health insurance and possible disability benefits are still in formative stage. Also in this doubtful class, but certain of study, is unemployment insurance and what should be done towards increasing benefits.

'Highly significant and worthy of noting for possible future moves, is fact that broadening of social security program is being pushed as a part of defense effort and as such will have better than normal chance. This is taken on Capitol Hill as evidence that social aims of Administration are to be implemented, at least in part, by tying their operation into the defense program.'

"Another report published by the Business Executive Publications, Inc., indicates that as a result of White House-Treasury-Security Board conferences on Social Security a determination was reached to delay, for the time being, consideration of a plan for disability benefits or for health insurance that would be financed by further pay-roll taxes."

Information on procurement and assignment of Physicians.

Resolution of the Tippecanoe County Medical Society opposing the resolution passed by the A.M.A. which suggested that a bureau be created for the procurement and assignment of physicians discussed by the committee.

Editorial by Dr. N. K. Forster in the October issue of the Lake County Medical News brought to the attention of the committee.

Comment by Dr. Irvin Abell, defending the A.M.A. resolution and its purposes brought to the attention of the committee.

Letter from Dr. M. A. Austin, president-elect of the Indiana State Medical Association, in general approving the purposes of the A.M.A. resolution reviewed by the committee.

Newspaper clipping in regard to the purported statement by Paul McNutt, Social Security Administrator, brought to the attention of the committee.

Copy of a letter written by Dr. Charles R. Bird, chairman of the Indiana M-Day Committee, brought to the attention of the committee.

The Executive Committee moved that a request be made of the A.M.A. for a speaker to appear on the program of the Council at the midwinter meeting January 11, 1942, and on the program of the Secretaries' Conference on January 25, 1942, to bring the profession of Indiana up to date upon the military situation as it affects the profession. An army man is also to be obtained for these two meetings to bring the profession up to date on the medical needs of the Army. This motion was made by Dr. Romberger and seconded by Dr. Mitchell.

Centralization of Social Security in Washington. The committee felt that such a move would be perhaps the greatest step that could possibly be taken at this time towards socialized medicine and approved wholeheartedly the action of Governor Henry Schricker and of Clarence Jackson, Indiana Civilian Defense Director, who spoke against such federalization.

Medical Economics

Survey contemplated by the Wisconsin State Medical Society in regard to nursing care brought to the attention of the committee.

Disposal of medical material in Indiana University Extension Division package library. This service is to be discontinued by the University and Mrs. Adela Bittner, secretary of the Bureau of Public Discussion, has asked about the disposition of this material. It is suggested that this material might be sent to the Medical School Library.

State Land Use Planning Committee of Kansas. A report upon this is to be made by the chairman at the next meeting of the Executive Committee.

Needy physicians. The committee suggested that letters received in regard to needy physicians be forwarded to Dr. Perry.

Gross Income Tax Department investigator checking on physicians. The committee approved the preparation of an article in regard to the necessity of physicians making accurate tax returns. This article is to be prepared by Mr. Stump, attorney for the Association, and then it is to be reviewed by several members of the committee before it is submitted for publication in the January issue of THE JOURNAL.

Medical Relief

September and October WPA reports brought to the attention of the committee.

Bulletin prepared by Dr. John Leffel, chairman of the Medical Relief Committee of the Indiana State Medical Association, along with comments by Drs. E. F. Boggs, A. E. Stinson and J. T. Oliphant, members of that committee, brought to the attention of the Executive Committee. The committee approved the distribution to the county medical societies of Dr. Leffel's report along with the material prepared by the welfare department.

Report made upon the discussion at the annual Social Work Conference of the subject, "The Administration of Medical Care," by Nathan Sinai, Doctor of Public Health, University of Michigan, and Dr. John Leffel. The committee heartily approved Dr. Leffel's discussion and views upon this subject.

Socialized Medicine

Meetings of the League of Women Voters in regard to health insurance survey.

a. Dr. R. G. Leland, director of the Bureau of Medical Economics of the American Medical Association, spoke before the Kokomo League on October 31 and discussed the subject with Dr. E. L. Kelly of the Division of Education and Applied Psychology Department of Purdue University. Dr. Kelly, it is reported, and his assistant "who has just come from California and who has had considerable personal experience with group medicine out there" spoke in favor of health insurance. It is understood that the Kokomo League decided upon a further study of the matter as its members did not want to take a stand at the present time upon a subject so highly controversial.

b. Dr. F. S. Crockett has been invited to address the Logansport League upon this subject on November 19.

c. The committee is to suggest names of physicians who can speak upon this subject to the League of Women Voters.

Revised pamphlet by A.M.A. The American Medical Association has revised its pamphlet entitled "Organized Payments for Medical Services." This has been distributed to the League of Women Voters' local study chairmen by Mrs. Don Datisman, state chairman of the study.

Military Preparedness

Committee on Assignment and Procurement of Physicians during National Emergency appointed by A.M.A.

Suggestions by Dr. F. T. Romberger, chairman of the Council, Dr. Alfred Ellison, councilor of the Thirteenth District, and Dr. Charles R. Bird, chairman of the M-Day Committee, brought to the attention of the committee.

Farm Security Administration

Report made upon discussion with Farm Security representatives in regard to the situation in Indiana. The committee reaffirmed its position that it should be left up to each local county medical society to make whatever arrangements it desires with the Farm Security Administration.

Future Meetings

Southern Medical Association meeting at St. Louis, November 10. Economic round table discussion. Dr. Carl McCaskey, president of the Indiana State Medical Association 1943, to represent the state association at that meeting.

Secretaries' Conference, A.M.A., Friday and Saturday, November 14 and 15. Dr. E. M. Shanklin, editor of THE JOURNAL, Dr. A. M. Mitchell, president, and the secretary of the Indiana State Medical Association, to attend the meeting.

150th anniversary meeting, Connecticut State Medical Society, June 4. Executive secretary invited to speak on this program. The committee approved accepting this invitation.

American Public Health Association. The Executive Committee approved a membership in the American Public Health Association for the executive secretary as representing the Indiana State Medical Association.

Midwinter meeting of the Council to be held January 11, 1942, Indianapolis.

Annual Secretaries' Conference to be held January 25, 1942. Drs. R. L. Hape, C. G. Kern, M. J. Thornton and W. M. Dugan, members of the Committee on Secretaries' Conference, appeared before the Executive Committee and outlined the program for this conference. This program was approved by the committee.

Group Hospitalization and Medical Service Plans

Representatives of the Indiana Hospital Association, Miss Nellie G. Brown and Clarence Hess, together with John R. Mannix, head of the Michigan Hospital Service, told of the survey of Indiana hospitals that is to be made immediately to set up a hospitalization plan here in Indiana. The Executive Committee approved such a survey on the part of the hospital association. The idea of the survey is to determine whether or not the hospitals in Indiana would want to perfect such a plan without waiting for legislation.

Ohio Medical Service plan. Handbook from Ohio brought to the attention of the committee.

Medical Expense Fund Plan of New York City and Western New York Medical Service Plan brought to the attention of the committee.

State Board of Medical Registration and Examination and Cult Study Committee

Decision of the Indiana Supreme Court in regard to Heil Crum brought to the attention of the committee.

The October 31 issue of *Labor Guide* featuring an article by L. L. Castetter, who it is understood has criticised the State Board of Medical Registration and Examination for its activities against unlicensed healers, brought to the attention of the committee.

Conservation of Vision Committee

Committee held meeting at the headquarters office at the same time as the Executive Committee met. As no member of the committee appeared before the Executive Committee it was taken for granted that this committee had no business which it desired to transact with the Executive Committee.

The Journal

Printing contract for 1942.

The committee approved giving the contract to the C. E. Pauley Company for the coming year.

Color in advertisements. The committee approved using color in advertisements if compensation could be received to cover the cost of such advertisements and allow THE JOURNAL a modest profit.

Advertisement of St. Margaret's Hospital Guild regarding Milk Station. The committee went on record approving the acceptance of advertisements from St. Margaret's Hospital Guild regarding their milk station at cost. Roughly this would be $10.00 for a full page, $5.00 for a half page, and $3.00 for a quarter page or less.

There being no further business, the meeting was adjourned.

LOCAL SOCIETY REPORTS

Bartholomew County Medical Society members held their regular meeting October twenty-ninth at the Colonial Inn, Columbus. This was a dinner meeting, and a general discussion of medical affairs followed the dinner. Sixteen members were present.

* * *

Delaware-Blackford County Medical Society members held a meeting at Hotel Roberts, Muncie, on September sixteenth. Doctor H. E. Bibler, of Muncie, gave a paper on "Hyperemesis Gravidarum," which was discussed by Doctor F. E. Kirshman, of Muncie. Thirty members attended the meeting.

On October twenty-first, a meeting was held at Hotel Roberts, Muncie. Elmer T. Cure, M.D., of Muncie, was the speaker of the evening, his topic being "Office Procedures in Diagnosis and Treat-

ment of Pathology of the Rectum." Doctor F. W. Dunn, Muncie, discussed Doctor Cure's paper. Thirty-four members and two guests were present at the meeting.

* * *

Fort Wayne (Allen County) Medical Society members held a joint meeting with the Woman's Auxiliary at the Fort Wayne Woman's Club on September sixteenth. The program was arranged by the Auxiliary and was of a social nature. One hundred sixty were in attendance.

On October seventh a meeting was held at the Chamber of Commerce building, Fort Wayne. Doctor Edwin P. Hayden, of Boston, Massachusetts, gave a paper on "Diseases of the Rectum and Colon." Following his paper, Doctor Hayden presented several reels of colored film. There were fifty-eight members present at the meeting.

At a meeting held on October twenty-first at the Irene Byron Tuberculosis Sanitarium, a case demonstration was given by Doctor M. H. Draper, of Fort Wayne. Dinner was served by the Irene Byron Tuberculosis Sanitarium preceding the demonstration. Sixty-four were present.

On November fourth, the Fort Wayne Medical Society members met at the Chamber of Commerce building, Fort Wayne. Doctor A. N. Ferguson, of Fort Wayne, spoke on "Etiology of Heart Disease." Forty-eight members were present.

* * *

Fountain-Warren County Medical Society members met at Mudlavia on October second for a dinner meeting. A short business session followed.

* * *

Gibson County Medical Society members met at the Emerson Hotel, Princeton, for a meeting on November tenth. Doctor Clayton G. Weigand, of Indianapolis, spoke on "Facts About Vitamins and Their Uses." Twenty-two members were present at the meeting.

A series of five lectures, one meeting each Wednesday, are being given by Doctor Carl P. Huber, of Indianapolis.

* * *

Hamilton County Medical Society members held a meeting at the Arcadia Legion Hall, Arcadia, on October fourteenth. Dinner was served by the Auxiliary of the American Legion. Doctor W. H. Crawford, dean of the Indiana University School of Dentistry, was the speaker of the evening.

* * *

Hancock County Medical Society members met at the Cottage Tourist Inn, near Greenfield, on October seventeenth.

* * *

Hendricks County Medical Society members held a meeting at Danville on October seventeenth. A paper on "What the Laboratories Can Do to Help the General Practitioner," was given by Doctor C. G. Culbertson, of Indianapolis. A report on the annual meeting of the Indiana State Medical Association was given by Doctor J. C. Stafford, of Plainfield.

Henry County Medical Society members met at Newcastle on October sixteenth for their regular monthly meeting. Doctor William V. Woods, of Indianapolis, discussed "Care of the Feet." There were fifteen members present.

* * *

Indianapolis (Marion County) Medical Society members met at the Indianapolis Athletic Club on October twenty-eighth. Papers were read by Doctor Rollin M. Moser, Doctor C. J. Clark, Doctor John Dalton, and Doctor P. B. Reed, all of Indianapolis.

* * *

Jasper-Newton County Medical Society members held a meeting at the Curtis Creek Country Club, Rensselaer, on October twenty-third. Doctor Harold F. Dunlap, of Indianapolis, spoke on "Diagnosis and Treatment of Hyperthyroidism." Ten members were present at the meeting.

* * *

Jay County Medical Society members held a meeting at the Jay County Hospital on October third. Doctor Joseph Larmore, of Muncie, was the speaker of the evening, his subject being "The General Practitioner and the First Sense—Seeing."

* * *

LaPorte County Medical Society members met at the Spaulding Hotel, Michigan City, on September eighteenth for their regular monthly meeting. Doctor Clifford J. Barborka, Associate in Medicine, Northwestern University Medical School, Chicago, presented a paper entitled "Medical Management of Gall Bladder Diseases." There were twenty in attendance at the meeting.

* * *

Madison County Medical Society members held a dinner meeting at Hotel Anderson, Anderson, on October twenty-first. Doctor Arthur B. Richter, of Indianapolis, discussed "Coronary Heart Ailments."

* * *

Muncie Academy of Medicine members held a meeting at Hotel Roberts on October fourteenth. Doctor Walter Shiller, director of laboratories at the Cook County Hospital of Chicago, was the guest speaker.

* * *

Northeastern Indiana Academy of Medicine members held its fall meeting in Fort Wayne. Doctor Robert B. Acker, of South Bend, spoke on "Aftertreatment of Poliomyelitis." Thirty-five physicians and surgeons were present at the meeting.

* * *

Orange County Medical Society members held a dinner meeting at the Mineral Springs Hotel, French Lick, October twenty-eighth. A business meeting and a professional forum was held.

* * *

Perry County Medical Society members met at Cannelton on October twenty-eighth for their regular monthly meeting. Plans were discussed for a Well-Baby Clinic and the tuberculin testing of high school freshmen. Doctor P. J. Caultas, of

Tell City, spoke on the advisability of prenatal blood tests.

* * *

Tri-County Medical Society members held their monthly meeting at Dewey's Cafe in Washington, on October twenty-eighth. Doctor P. E. McCown, Indianapolis, spoke on "Kidney Stones." Twenty members and two guests were present at the meeting.

* * *

Randolph County Medical Society members met at the Randolph County Hospital on October thirteenth. Doctor E. H. Clauser, of Muncie, gave a report of the annual meeting of the Indiana State Medical Association, held in Indianapolis in September.

* * *

St. Joseph County Medical Society members held a joint meeting with the Indiana Anti-Tuberculosis Association at the Healthwin Hospital, in South Bend, on October fifteenth. They discussed the newer concepts of diseases of the laryngo-bronchial system. Doctor Edward W. Custer, of South Bend, showed pictures of tuberculosis in the vocal cords. Doctor John A. Mart, of South Bend, spoke on "Bronchiectasis." The guest speaker, Doctor Paul Holinger, of Chicago, was the after-dinner speaker. Motion pictures were used in connection with his talk.

* * *

Tippecanoe County Medical Society members held a meeting at Lafayette on October fourteenth. Doctor B. R. Kirklin, of the Mayo Clinic, discussed "X-ray in Chest Diseases." The society members were guests of Doctor J. W. Strayer, of the William Ross Sanitarium. Fifty-five members were present.

* * *

Union District Medical Association members held its one hundred and forty-seventh semi-annual meeting on October twenty-third. Included in the program were Doctor J. S. Leffel of Connersville, who spoke on "Recent Developments in Public Welfare"; Doctor Russell L. Malcolm, of Richmond; Doctor George S. Bond, of Indianapolis, and Doctor Mark Millikin, of Hamilton, Ohio.

* * *

Vanderburgh County Medical Society members were entertained as guests of the Welborn-Walker Hospital at a dinner meeting held on October fourteenth in the Empire room of the Vendome Hotel, Evansville.

TENTH DISTRICT MEDICAL SOCIETY MEETING

The Tenth District Medical Society held a meeting in the afternoon and evening of October ninth.

* * *

ELEVENTH DISTRICT MEDICAL SOCIETY MEETING

Eleventh Councilor District members held their sixty-sixth semi-annual meeting on October eighth at Logansport State Hospital. Doctor Franklin H. Top, of Detroit, author of *Handbook of Communicable Diseases*, was one of the principal speakers. A clinic was conducted in the morning by Doctor Clifford Williams, of Logansport, on "Early Symptoms of Depressive States." Doctor Harry E. Mock, of Chicago, spoke on "Early Treatment of Skull Fractures and Brain Injuries." A talk was given by Doctor John R. Thrasher of Indianapolis; and Doctor A. M. Mitchell, of Terre Haute, president of the Indiana State Medical Association, was a special guest. The doctors' wives were entertained by a talk on "A Trip to Romantic Peking," given by James Henry White. Slides were also shown.

THIRTEENTH COUNCILOR DISTRICT MEETING

The annual meeting of the Thirteenth District Medical Society was held in South Bend on Wednesday, November 12, 1941. One hundred and thirty physicians and surgeons attended this meeting.

The morning session was held at the South Bend Medical Laboratory, at which time Doctors A. S. Giordano and C. S. Culbertson of South Bend discussed "The Physiological Basis for Diagnostic Procedures in Hepatic Diseases," and presented illustrative cases.

The afternoon session was held at Hotel La Salle, at which time the following program was given: "The Management of Neuroses by the General Practitioner," by Dr. David A. Boyd, professor of Psychiatry at the Indiana University Medical Center; "Diagnosis and Treatment of Tumors and Cysts of the Neck," by Dr. R. Bruce Malcolm of the Illinois Research Hospital; "Nervous Exhaustion with Accompanying Gastro-Intestinal Symptoms," by Dr. C. L. Hartsock of the Cleveland Clinic, Cleveland, Ohio; and "Recent Studies in the Treatment of Hypertension by Injection of Kidney Extract," by Dr. A. C. Corcoran of the Lilly Research Laboratories, Indianapolis.

The banquet was held at Hotel La Salle after which the Honorable Samuel B. Pettengill addressed the group on "Medicine and the Government."

At the business meeting the following officers were elected for the coming year: president, M. E. Miller, M.D. of Goshen, Indiana; vice-president, Thomas Aldrich, M.D. of Michigan City, Indiana; secretary-treasurer, L. C. Bixler, M.D. of South Bend, Indiana; and councilor, Alfred Ellison, M.D. of South Bend, Indiana.

A new constitution and by-laws were presented to the group, all of which was adopted except the section dealing with the collection of dues for the Thirteenth District Medical Society by the individual county secretaries. This section must be ratified by the eight component societies before adoption.

WOMAN'S AUXILIARY

President—Mrs. Ernest O. Nay, Terre Haute.
President-Elect—Mrs. Arnold Duemling, Fort Wayne.
Corresponding Secretary—Mrs. Don M. Mattox, Terre Haute.
Treasurer—Mrs. T. R. Hayes, Muncie.

In order to help county auxiliaries in planning the program for the coming year, Mrs. E. N. Mendenhall, chairman of the Program Committee, has made the following suggestions:

"Please be very alert in your study and observation of 'Nutrition for Defense.' This can be a 'Roman holiday' for faddists, cultists and mine-run propagandists. The Health Education Bureau of the American Medical Association, under the direction of Dr. W. W. Bauer, has given us a very complete bibliography of authentic articles pertaining to the subject. If, when you have decided on a 'nutrition' meeting, you will let me know what phase you hope to develop, I will try to give you sources of information for that particular development. *Hygeia* is running a series of valuable articles on the subject. *Read each issue of Hygeia and our own Bulletin.*

"Public Relations is our most important and most delicate field of activity. Consult your local Advisory Board always."

SLOGAN

"Keep the Control of Health Problems in the Hands of the Medical Profession."

It is suggested that topics be chosen from each of the four activities listed in order that the program be varied and balanced. Satisfy the needs of your community. Do not overload your local capacities.

LEGISLATIVE ACTIVITIES

Note: Many of the following topics may be used equally well in study groups or at general auxiliary meetings. *S* means Senate Bill, and *H.R.* means House of Representatives' Bill.

I. S-3230—Wagner-George Hospital Construction References, *Journal A.M.A.* January 13, February 10, May 11, June 8, 1940. *Medical Economics*, August, 1940, p. 96.

II. S-1230—Hospital Construction Bill. *Journal A.M.A.* June 21, 1941, p. 2783.

III. S-3269—Mead Hospital Construction Bill. *Journal A.M.A.* February 10-May 11, 1940.

IV. S-3630—Lodge Health Insurance Act, 1940. *Journal A.M.A.* March 30, May 11, January 13, 1940.
S-489—*Journal A.M.A.* February 1, 1941, p. 421.

V. S-509—Industrial Health. *Journal A.M.A.* February 1, p. 421.
S-666—February 15, 1941, p. 630.

VI. Federal Legislation Affecting Treatment and Care of Military and Naval Service Men:
S-3997, S-4017, S-1460, S-3131, S-3266, H.R. 8982. *Journal A.M.A.* January 13, March 30, June 8, 1940.
S-165, S-238, H.R. 2263, H.R. 2299, H.R. 2467. *Journal A.M.A.* February 1, 1941, p. 421.

VII. Case of United States vs. A.M.A. et al. *Journal A.M.A.* June 1-8, 1940; July 20, 1940. *Journal A.M.A.* February 15, 1941, and subsequent numbers to end of trial.

VIII. Welfare Department Law in Indiana:
Consult State Legislative Committee of State Medical Association.
A. Tests of Children of School Age, and Aid to the Hard of Hearing.
B. Physical Examinations for T.B. of School Teachers, Janitors and Bus Drivers.

PUBLIC RELATIONS ACTIVITIES

I. Teas, with official delegates from lay-women's organizations as guests. Guest speaker, one thoroughly acquainted with subject and trained in presentation.
Consult your Advisory Board.
Subjects for such teas:
1. Political, or Socialized Medicine—Does It Affect the Quality of Your Medical Service?
2. Pioneers in Public Welfare Service.
3. Heroes in Quest for Health (preferably American).
4. Significance of National Hospital Program.
5. Dramatize the life of an outstanding person or institution dedicated to public health in your community.
6. Adult Nutrition for Defense.
7. Various Types of Group Practice of Medicine.
8. The Rising Cost of Welfare Agencies.

EDUCATIONAL ACTIVITIES

I. Coordination of Welfare Activities and Medical Practice. Symposium led by representatives of national, state, county, township and city welfare agencies, and Liaison Committees of County Medical Societies.

II. Health Problem of Transients, Library A.M.A.—H.R. 161, *Journal A.M.A.*, March 8, 1941, p. 1010.

III. Health Insurance:
A. Michigan—Medical Care Plan, Hospital Care Plan.
B. Various Rural Plans.

IV. Medical Care Program of Farm Security Administration, *Journal A.M.A.* June 21, 1941, p. 2784.

V. N.Y.A. Health Program, *Journal of the Indiana State Medical Association* June, 1941, p. 339.

VI. Cults—e.g.:
A. "The Great MacFadden," *Saturday Evening Post* June 21-28, 1941.
B. Paul O. Sampson, Food and Health Expert (Rice), *Journal of the Indiana*

(Continued on page xxi)

THE JOURNAL
OF THE
Indiana State Medical Association

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

E. M. SHANKLIN, M.D., Hammond, Editor
THOMAS A. HENDRICKS, Indianapolis, Managing Editor.
NELLA H. ROKKE, Indianapolis, Assistant Editor

EDITORIAL BOARD

Edgar F. Kiser, M.D., Indianapolis
Lyman T. Rawles, M.D., Fort Wayne
James F. Balch, M.D., Indianapolis
E. L. Van Buskirk, M.D., Lafayette
Herman M. Baker, M.D., Evansville
L. G. Montgomery, M.D., Muncie

Office of Publication: 1021 Hume-Mansur Bldg., Indianapolis, Indiana

INDEX TO VOLUME 34

January to December, Inclusive, 1941

January	—Pages 1 to 56	July	—Pages 355 to 406
February	—Pages 57 to 110	August	—Pages 407 to 446
March	—Pages 111 to 174	September	—Pages 447 to 540
April	—Pages 175 to 234	October	—Pages 541 to 580
May	—Pages 235 to 286	November	—Pages 581 to 658
June	—Pages 287 to 354	December	—Pages 659 to 728

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

Index to Volume 34, January-December, 1941

ORIGINAL ARTICLES

Accidental Death (Topping) 257
American Board, The (Ruby) 249
Anesthesia at Indianapolis City Hospital, A Year of (Adams) 61
Anesthesia for Oral Surgery During Infancy (Spaid) 145
Anesthesia, The Cardio-Vascular Equilibrium During (Rovenstine-Martin) 201
Angina, Agranuloeytic (Leser) 64
Anorectal Diseases (Wheeler) 548
Antigenic Properties of Hemophilus Pertussis, Influence of Culture Media on the (Powell-Jamieson) 413
Appendicitis with Abscess, Sulfanilamide in (Hadley) 543
Appendicitis with Multiple Abscess of the Liver and Other Complications with Recovery (Berman-Egbert) 365
Arsenotherapy, Massive, in Syphilis (Bowman-Sheehan) 665
Arteriosclerosis (Maple) 424
Aspiration, Endocavitary (Giles) 298
Aviation Medicine (Bauer) 582

Blood Stain of the Cornea (Larkin) 459
Blood Eosinophilia in a Group of Ambulatory Patients (Kraft) 249
Brachial Birth Paralysis (Fischer) 552
Bright's Disease (Page) 374

Calvarium, Hyperostosis of the (Williams) 361
Cancer of the Lung (Sanderson) 463
Cancer of the Uterus, Early Symptoms and Signs of (Habermel) 211
Cancer, Present Day Aspects of the Etiology of (Forster) 208
Carcinoma of the Prostate—New Methods of Management and Treatment (Balch) 674
Cardio-Vascular Equilibrium During Anesthesia (Rovenstine-Martin) 201
Cataract Extraction, Delirium Associated With (Boyd-Norris) 130
Cerebral Hemorrhage (Stier) 111
Cesarean Section, Indications for (Eastman) 14
Congo Red—An Effective Chemotherapeutic Agent (Green) 306
Consultant, The (Asher) 370
Council on Physical Therapy (Carter) 115
Cornea, Blood Stain of the (Larkin) 459
Culture Media, Influence of, on Antigenic Properties of Hemophilus Pertussis (Powell-Jamieson) 413

Death, Accidental (Topping) 257
Delirium Associated with Cataract Extraction (Boyd-Norris) 130
Democracy, Youth Health and (Sensenich) 674
Dermatitis, Occupational (Gastineau) 184
Diabetic, Management of the Adult (Beeson) 591
Diabetic, Management of the Juvenile (Shafer) 588
Diabetes, Management of the Senile (Edlavitch) 593
Diaphragm, Postencephalitic Tic of (Skillern) 414
Diarrhea, Infantile (Carleton-Ryan) 407
Digest of the Doctors' Situation—The Medical Front (Mitchell) 541
Doctors Watch the Ramparts, Too (Phillips) 251

Endocavitary Aspiration — Monaldi Procedure (Giles) 298
Endocrine Treatment in General Practice (Mazer) 584
Endometrial Tissue in an Inguinal Hernia (Case Report) (Donovan) 372
Eosinophilia, Blood; Significance of in a group of Ambulatory Patients (Kraft) 249
Essentials in Fracture Treatment (Moorhead) 595
Examinations, Neuropsychiatric, in Selective Service (Mericle) 410
Eye in Industry (Alvis) 239

Feet, Pain in the (Davis) 27
Fever, Unexplained (Mitchell) 461
Fractures, Comminuted, of the Lower Leg, Treatment of (Davidson) 66
Fractures of Surgical Neck of the Humerus, Early Physical Therapy in the Treatment of (Garceau-Cogland) 293
Fracture Treatment, Essentials in (Moorhead) 595
Front, The Medical—Digest of the Doctors' Situation (Mitchell) 541

Glaucoma—Associated Headaches (Clark) 247
Gynecology and Obstetrics, Uses of Progestin in (Peyton) 136

Health and Safety Precautions, Industrial (Ridinger) 188
Health and Income (Fritz) 191
Health, Youth, and Democracy (Sensenich) 674
Heart Disease, Phonocardiograph Studies on (Middleton) 559
Heart in Middle Life (Willison) 57
Hemorrhage, Cerebral (Stier) 111
Hernia, Endometrial Tissue in an Inguinal (Case Report) (Donovan) 372
Highlights of Dr. Rankin's Address (Rankin) 581
Holmes, Dr. Oliver Wendell—Some Unpublished Medical Case Records (Poston) 556
Humerus, Surgical Neck of, Early Physical Therapy in Treatment of Fractures of the (Garceau-Cogland) 293
Hyperostosis of the Calvarium (Williams) 361

Ileitis, Regional (Wallace) 677
Income and Health (Fritz) 191
Indiana State Board of Health, Industrial Hygiene Activities of (Spolyar) 175
Industrial Health and Safety Precautions (Ridinger) 188
Industrial Hygiene Activities of the Indiana State Board of Health (Spolyar) 175
Industry, Medical Practice in (Jones) 182
Industry, Medical Relationships in (Peterson) 180
Industry, The Eye in (Alvis) 239
Infancy, Anesthesia for Oral Surgery During (Spaid) 145
Infantile Diarrhea (Carleton-Ryan) 407
Infant Mortality in Indiana for the Year 1940 (Committee Report) 300
Influenza (Flack) 544
Injured, The, Helping with Physical Therapy (Polmer) 114

Laboratory Service to Small Hospitals, Adequate (Rhamy) 303
Lung, Cancer of the (Sanderson) 463

Massive Arsenotherapy in Syphilis (Bowman-Sheehan) 665
Maternal Mortality in Indiana for 1940 (Committee Report) 301
Medical Aspects of Physical Therapy (Libbert) 121
Medicine, Aviation (Bauer) 582
Medicine, Organized, and Tuberculosis (Goldberg) 669
Medico-Legal Relationships, Problem of (Knoefel) 193

Meningioma of Choroid Plexus, (Case Report) (Woolsey-Klemme) 18
Menopause (Bickel) 295
Mental Disorders, Electrical Convulsion Therapy in (Metcalfe) 455
Metabolic Rates, Low Basal, The Clnical Significance and Treatment of States Associated with (Dunlap) 73

Neuropsychiatric Examination in Selective Service (Mericle) 410

Obstetrics and Gynecology, Uses of Progestin in (Peyton) 136
Obstetrics—Old and New (Cowing) 288
Occupational Dermatitis (Gastineau) 184
Office Management of Pelvic Diseases (Howard) 138
Ophthalmology, The American Board of (Ruby) 249
Ophthalmology, Two Important Developments in (Masters) 237
Ovary, Rupture of Infarcted Granulosa Cell Tumor of the, with Massive Hemorrhage (Bach-Montgomery) 421

Pain in the Feet (Davis) 27
Paralysis, Brachial Birth (Fischer) 552
Parkinson's Disease, Treatment with Pyridoxine Hydrochloride (Vitamin B Hydrochloride). Preliminary Report. (Rudesill-Weigand) 356
Pathology, Physiologic, of Shock as Applied to Treatment (Giordano) 197
Pelvic Diseases, Office Management of (Howard) 138
Phonocardiographic Studies on Heart Diseases (Middleton) 559
Physical Medicine, Surgical Applications of (Kime) 117
Physical Therapy, Council on (Carter) 115
Physical Therapy, Helping the Injured with (Polmer) 114
Physical Therapy in Treatment of Fractures of the Surgical Neck of the Humerus (Garceau-Cogland) 293
Physical Therapy, Medical Aspects of (Libbert) 121
Physical Therapy, Report on 1940 Hospital Survey (Prentiss) 125
Pneumonia (Thomas-Dorman-Clark) 308
Postencephalitic Tic of Diaphragm (Skillern) 414
Pregnancy, Complications of, and Their Treatment (Shuck) 69
Pregnancy, Paroxysmal Auricular Tachycardia Complicating (Browning-Clark) 21
Problems of Medico-Legal Relationships (Knoefel) 193
Progestin, Uses of, in Obstetrics and Gynecology (Peyton) 136
Prostate, Carcinoma of the, New Methods of Management and Treatment (Balch) 672
Pyridoxine Hydrochloride, Treatment of Parkinson's Disease with (Rudesill-Weigand) 356

Reading, Non-Medical, for Physicians (Weil) 564
Rupture of Infarcted Granulosa Cell Tumor of Ovary with Massive Hemorrhage (Bach-Montgomery) 421

Sedimentation Rate of Red Blood Cells: A Simple Office Prodecure (Wilder) 24
Selective Service, Neuropsychiatric Examinations in (Mericle) 410
Sexual Problem, The (Miller) 682
Shock, The Physiologic Pathology of, as Applied to Treatment (Giordano) 197
Suicide (Westra) 546
Sulfadiazine: A New Chemotherapeutic Agent (Powell-Chen) 602
Sulfanilamide in Appendicitis with Abscess (Hadley) 543
Sulfanilamide, New Derivatives and Their Mode of Action (Mellon) 8
Sulfonamide Compounds, The; Their Uses and Principles of Therapy (Province) 659
Surgical Applications of Physical Medicine (Kime) 117
Syphilis, Massive Arsenotherapy in (Bowman-Sheehan) 665

Tachycardia, Paroxysmal Auricular, Complicating Pregnancy (Browning-Clark) 21
Therapeutic Agents, Newer Proven (Casper-Petro) 141
Therapy in Mental Disorders, Electrical Convulsions in (Metcalfe) 455
Thoracoplasty—Types of Tuberculosis Suitable for Operation (Report of Twenty-five Cases) (Strayer Thomas) 451
Tracheobronchial Obstruction and Its Relation to Pulmonary Tuberculosis (Becker-Holmes) 448
Trachoma (McBride) 245
Treatment, Endocrine, in General Practice (Mazer) 582
Tuberculosis, Organized Medicine and (Goldberg) 669
Tuberculosis, Pulmonary—Tracheobronchial Obstruction and Its Relation to (Becker-Holmes) 448

Ulcer, Peptic, Prognosis and Treatment in (Flood) 1
Uterus, Early Symptoms and Signs of Cancer of the (Habermel) 211

Vision, Conservation of, Activities of Committee on (Van Buskirk) 235
Youth Health and Democracy (Sensenich) 674

EDITORIALS

Accidental Deaths 260
Aid, Medical, to Registrants 522
Appreciation, An 428
Are We Missing a Bet? 428
Arsenic and Old Lace 262
Arteriosclerosis 427

Book Reviewer's Page 215

Cancer 213
Cerebrial Hemorrhage 146
Christmas, Merry, to Hoosier Medicine 685
Clinical Pathologist 78
Conservation of Vision 260
Convention, Indianapolis 609
Council, A Health 427
Crum Case, The 33
Crum, Heil 686

Deaths, Accidental 260
Decadence, Prescription 523
Defense Program, National 149
Diabetes, Present Concept of 610
Doctors Anonymous 568
Doctors' Disease 81
Driving Hazards, Extra, in Winter 32

Economics for the Future 32
Editorial Notes:
34, 81, 151, 216, 263, 314, 381, 429, 524, 570, 611, 689
Education, Thoughts on Syphilis 685
Examinations, Selective Service 312

Friends, We Have 379

Gentlemen, Three, from Indiana 687
Grand Old Man of Indiana Medicine 311

Health Council 427
Health, Industrial 213
Heart Disease 78
Hemorrhage, Cerebral 146
Hoosier Politics 31

Inchin', Just, Along 688
Indiana, Back Again in 262

Indiana in October 569
Indianapolis Convention 609
Industrial Health 213
Ineligibles, Selective Service 566
Influenza, Epidemic 566

Lahey's Address, Dr. 378

Medicine, War and 611
Medical Student, The Status of 688

National Defense Program 149
Nephritis 378

Pathologist, Clinical 78
Physical Therapy 147
Poised for the Kill 261
Politics, Hoosier 31
Pneumonia, Pneumococcal 311
Prescription Decadence? 523
President, Our 521
Problem, Traffic Again 150
Program, National Defense 149

Records, Value of Medical Society 313
Registrants, Medical Aid to 522
Revelations, Selective Service 312
Ritholz Rides Again 214

Secretaries' Conference 80
Selective Service Examinations 312
Selective Service Ineligibles 566
Selective Service Revelations 80
Slaughter, Stop This 611
Spurgeon, William A. 33
Student, The Status of the Medical 688
Suicides 567
Syphilis Education, Thoughts on 685

Therapy, Physical 147
Traffic Problem 150
Traffic Problem Continues 524
Tuberculosis, Management and Treatment of 521

Value of Medical Society Records 313
Vision, Conservation of 260

War and Medicine 611
What Does This Mean? 380
What One Man Thinks 569
Winter, Extra Driving Hazards in 32
Wishard, William Niles 148
Work To Be Done, There's More 263

AUTHORS

Adams, William B., Indianapolis (A Year of Anesthesia at the Indianapolis City Hospital) 61
Alvis, E. O., Indianapolis (Eye in Industry) 239
Amy, William E., Corydon (Memento of the Old Constitutional Elm Presented to the Indiana State Medical Association) 622
Asher, E. O., New Augusta (The Consultant) 370

Bach, Amil C., Indianapolis, and Montgomery, M. M., Chicago (Rupture of an Infarcted Granulosa Cell Tumor of the Ovary with Massive Hemorrhage) 421
Baker, Herman M., Evansville (Report of National Nutrition Conference for Defense) 393
Balch, James F., Indianapolis (Carcinoma of the Prostate—New Methods of Management and Treatment) 672
Barker, Creighton, New Haven, Connecticut (Everything Counts) 154
Bauer, Louis H., Hempstead, N. Y. (Aviation Medicine) 582
Becker, Philip H., and Holmes, George W., Crown Point (Tracheobronchial Obstruction and Its Relation to Pulmonary Tuberculosis) 447
Beeson, Roscoe H., Muncie (Management of the Adult Diabetic) 591
Berman, J. K., and Egbert, H. L., Indianapolis (Appendicitis with Multiple Abscess of the Liver and Other Complications with Recovery) 365
Bickel, David A., South Bend (The Menopause) 295
Bowman, George W., and Sheehan, Francis G., Indianapolis (Massive Arsenotherapy in Syphilis) 665
Boyd, David A., and Norris, Mary A., Indianapolis (Delirium Associated with Cataract Extraction) 130
Browning, J. S., and Clark, C. J., Indianapolis (Paroxysmal Auricular Tachycardia Complicating Pregnancy) 21
Bryan, William Lowe, Bloomington (Dr. Wishard and the I.U. Medical School) 329

Carleton, E. H., East Chicago, and Ryan, Hubert J., Gary (Infantile Diarrhea) 407
Carter, Howard A., Chicago (The Council on Physical Therapy) 115
Casper, Misch, and Petero, G. J., Louisville, Ky. (Newer Proven Therapeutic Agents) 141
Chen, K. K., and Powell, H. M., Indianapolis (Sulfadiazine: A New Chemotherapeutic Agent) 602
Clark, C. J., and Browning, J. S., Indianapolis (Paroxysmal Auricular Tachycardia Complicating Pregnancy) 21
Clark, C. J., Thomas, M. E., and Dorman, J., Indianapolis (Pneumonia) 308
Clark, C. P., Indianapolis (Glaucoma, Associated Headaches) 247
Cogland, Shirley, and Garceau, George J., Indianapolis (Early Physical Therapy in the Treatment of Fractures of the Surgical Neck of the Humerus) 293
Cowing, Hugh A., Muncie (Obstetrics—Old and New) 288
Crockett, F. S., Lafayette (American Medical Association in Cleveland) 389

Davidson, William Donald, Evansville (Treatment of Comminuted Fractures of the Lower Leg) 66
Davis, Parvin M., New Albany (Pain in the Feet) 27
Donovan, Stephen J., Michigan City (Endometrial Tissue in an Inguinal Hernia) 372
Dorman, J.; Thomas, M. E., and Clark, C. J., Indianapolis (Pneumonia) 308
Dunlap, Harold F., Indianapolis (Clinical Significance and Treatment of States Associated with Low Basal Metabolic Rates) 73

Eastman, Nicholson J., Baltimore, Md. (Indications for Cesarean Section) 14
Edlavitch, B. M., Fort Wayne (Management of Diabetes in the Senile) 593
Egbert, H. L., and Berman, J. K., Indianapolis (Appendicitis with Multiple Abscess of the Liver and Other Complications with Recovery) 365

Fargher, Robert A., LaPorte (Attendance at Medical Society Meetings) 89
Ferree, John W., and Schneider, J. C., Indianapolis, (The Part of Physicians and Dentists in the Dangerous Drug Program) 695
Fischer, K. Armand, Louisville, Ky. (Brachial Birth Paralysis) 552
Flack, Russell A., Lafayette (Influenza) 544
Flood, Charles A., New York (Prognosis and Treatment in Peptic Ulcer) 1
Forster, N. K., Hammond (Present Day Aspects of the Etiology of Cancer) 208
Frantz, George A., Indianapolis (Dr. Wishard and his Pastor) 331
Fritz, Adolph J., Indianapolis (Health and Income) 191

Garber, J. Neill, Indianapolis (N.Y.A. Health Program) 339
Gareeau, George J., and Cogland, Shirley, Indianapolis (Early Physical Therapy in the Treatment of Fractures of the Surgical Neek of the Humerus) 293
Gastineau, Frank M., Indianapolis (Occupational Dermatitis) 184
Gatch, W. D., Indianapolis (Dr. Wishard's Work in Medieal Education and Urology) 334
Giles, Frederick L., Kealia, Kauai, Hawaii (Endoeavitary Aspiration—Monaldi Procedure) 298
Giordano, Alfred S., South Bend (The Physiologic Pathology of Shock as Applied to Treatment) 197
Goldberg, Benjamin, Chieago, Illinois (Organized Medieine and Tubereulosis) 669
Green, W. L., Columbus (Congo Red—An Effective Chemotherapeutic Agent) 306

Habermel, John F., New Albany (Early Symptoms and Signs of Cancer of the Uterus) 211
Hadley, Murray N., Indianapolis (Sulfanilamide in Appendicitis with Abscess) 543
Hamer, Homer G., and Mertz, Henry O., Indianapolis (Our Professional Associate) 326
Hendricks, Thomas A., Indianapolis (Dr. Wishard and the Bureau of Publicity) 335
Holmes, George W., and Becker, Philip H., Crown Point (Tracheobronchial Obstruction and Its Relation to Pulmonary Tuberculosis) 447
Howard, W. H., Hammond (Office Management of Pelvic Diseases) 138

Jamieson, W. A., and Powell, H. M., Indianapolis (Influence of Culture Media on the Antigenic Properties of Hemophilus Pertussis) 413
Jones, E. S., Hammond (Medical Practice in Industry) 182

Kime, Edwin N., Indianapolis (Surgieal Applications of Physical Medieine) 117
Kiser, Edgar F., Indianapolis (Know Your Medical History) 623
Klemme, R. M., and Woolsey, R. Dean, St. Louis, Mo. (Meningioma of the Choroid Plexus) 18
Knoefel, August F., Terre Haute (Problems of Medico-Legal Relationships) 193
Kraft, Bennett, Indianapolis (Signifieance of Blood Eosinophilia in a Group of Ambulatory Patients) 249

Larkin, Bernard J., Indianapolis (Blood Stain of the Cornea) 459
Leffel, J. S., Connersville (Some Observations on the Medical Care of the Indigent) 42
Leser, Ralph U., Indianapolis (Agranulocytie Angina) 64
Libbert, Edwin L., Lawrenceburg (Medical Aspeets of Physical Therapy) 121

Maple, James B., Sullivan (Arteriosclerosis) 424
Martin, Stevens J., and Rovenstine, E. A., New York (Cardiovaseular Equilibrium During Anesthesia) 201
Masters, Robert J., Indianapolis (Two Important Developments in Ophthalmology) 237
Mazer, Charles, Philadelphia, Pa. (Endoerine Treatment in General Practiee) 584
McBride, Noel S., Terre Haute (Trachoma) 245
McCormack, Arthur T., Louisville, Ky. (Dr. William Niles Wishard) 329
Mellon, Ralph R., Pittsburgh (New Sulfanilamide Derivatives and Their Mode of Aetion) 8
Mericle, Captain E. W., Fort Benjamin Harrison (Neuropsyehiatric Examinations in Selective Service) 410
Metcalfe, Grant E., South Bend (Electrical Convulsion Therapy in Mental Disorders) 455

Mertz, Henry O., and Hamer, Homer G., Indianapolis (Our Professional Assoeiate) 326
Mettel, Howard B., Indianapolis (Report of Maternity Nursing Demonstration Services in the State of Indiana) 572
Middleton, Harvey N., Indianapolis (Phonocardiograph Studies on Heart Diseases) 559
Miller, Minor, Evansville (The Sexual Problem) 682
Mitchell, Albert M., Terre Haute (President's Address. The Medical Front—A Digest of the Doctors' Situation) 542
Mitchell, R. E., Indianapolis (Unexplained Fever) 461
Moorhead, John J., New York (Essentials in Fracture Treatment) 595
Munly, Lt. Col. William C. (Participation of the Medical Department of the Army in the 1940-41 Military Training Program) 156
Myers, Charles W., Indianapolis (Dr. Wishard and the City Hospital) 330

Noel, James W., Indianapolis (Dr. Wishard and His Attorney) 332
Norris, Mary A., and Boyd, David A., Jr., Indianapolis (Delirium Associated with Cataract Extraction) 130

Page, Irvine H., Indianapolis (Bright's Disease) 374
Peterson, C. M., Chieago (Medical Relationships in Industry) 180
Petro, George J., and Casper, Misch, Louisville, Ky. (Newer Proven Therapeutic Agents) 141
Peyton, Frank W., Lafayette (Uses of Progestin in Obstetrics and Gyneeology) 136
Phillips, J. R., Michigan City (Doetors Watch the Ramparts, Too) 251
Polmer, Nathan H., New Orleans, La. (Helping the Injured with Physical Therapy) 114
Poston, Clement L., Richmond (Dr. Oliver Wendell Holmes—Some Unpublished Case Records) 556
Powell, H. M., and Chen, K. K., Indianapolis (Sulfadiazine: A New Chemotherapeutie Agent) 602
Powell, H. M., and Jamieson, W. A., Indianapolis (Influenee of Culture Media on the Antigenic Properties of Hemophilus Pertussis) 413
Prentiss, N. H., Fort Wayne (Report on 1940 Hospital Survey on Physical Therapy) 125
Province, William D., New York City (The Sulfonamide Compounds—Their Uses and Principles of Therapy) 659

Rankin, Fred W., Lexington, Ky. (Highlights of Dr. Rankin's Address) 581
Rhamy, B. W., Fort Wayne (Adequate Laboratory Service to Small Hospitals) 303
Rice, Thurman B., Indianapolis (Dr. Wishard and the Indiana State Board of Health) 328
Rice, Thurman B., Indianapolis (Paul O. Sampson, Food and Health Expert) 340
Ridinger, J. L., East Chicago (Industrial Health and Safety Preeautions) 188
Rovenstine, E. A., and Martin, Stevens J., New York (Cardio-Vascular Equilibrium During Anesthesia) 201
Ruby, Fred McK., Union City (The American Board) 249
Rudesill, Cecil L., and Weigand, C. G., Indianapolis (Treatment of Parkinson's Disease with Pyridoxine Hydroehloride) 355
Ryan, Hubert J., Gary, and Carleton, E. H., East Chieago (Infantile Diarrhea) 407

Sage, Russell S., Indianapolis (State Fair) 620
Sanderson, Robert B., South Bend (Cancer of the Lung) 463
Schneider, J. C., and Ferree, John W., Indianapolis (The Part of Physicians and Dentists in the Dangerous Drug Program) 695
Sensenich, Roscoe L., South Bend (Youth Health and Democracy) 674

Shafer, M. R., Indianapolis (Management of Juvenile Diabetes) 588
Sheehan, Francis G., and Bowman, George W., Indianapolis (Massive Arsenotherapy in Syphilis) 665
Sheppard, Virgil, Indianapolis (New Medical Aid Plan for Needy Aged, Needy Blind, and for Dependent Children) 625
Shuck, W. A., Madison (Complications of Pregnancy and their Treatment) 69
Skillern, Penn-Gaskell, South Bend (Postencephalitic Tic of Diaphragm) 414
Smith, Leo X., Indianapolis (Medical and Hospital Care of Old-Age Pensioners Under New Law) 270
Smith, Leo X., Indianapolis (New Court Decision on Emergency Medical Care by Townships) 396
Smith, Will H., Indianapolis (Your Federal Income Tax) 86
Spaid, J. D., Dayton, Ohio (Anesthesia for Oral Surgery During Infancy) 143
Spolyar, Louis W., Indianapolis (Industrial Hygiene Activities of the Indiana State Board of Health) 175
Stafford, Frank S., Indianapolis (Recommendations for Public School Programs of Health and Physical Education for National Defense) 397
Stier, Paul L., Fort Wayne (Cerebral Hemorrhage) 111
Strayer, J. W., and Thomas, Gordon A., Lafayette (Thoracoplasty: Types of Tuberculosis Suitable for Operation—Report of Twenty-Five Cases) 451

Thomas, Gordon A., and Strayer, J. W., Lafayette (Thoracoplasty: Types of Tuberculosis Suitable for Operation—Report of Twenty-Five Cases) 451
Thomas; M. E., Dorman, J., and Clark, C. J., Indianapolis (Pneumonia) 308
Topping, Malachi C., Terre Haute (Accidental Death) 257
Townsend, Terry M., New York (Wishard, The man) 319

Van Buskirk, E. L., Lafayette (Activities of the Committee on Conservation of Vision) 236

Wallace, Hawthorne C., Crawfordsville (Regional Ileitis) 677
Waterson, Rollen W., Gary (Attractive Exhibit Shows Activities of Lake County Medical Society) 624
Weigand, C. G., and Rudesill, Cecil L., Indianapolis (Treatment of Parkinson's Disease with Pyridoxine Hydrochloride) 355
Weil, Harry J., Indianapolis (Non-Medical Reading for Physicians) 564
Westra, J. J., Muncie (Suicide) 546
Wheeler, Homer H., Indianapolis (Anorectal Diseases) 548
Woolsey, R. Dean, and Klemme, R. M., St. Louis, Mo. (Meningioma of the Choroid Plexus) 18
Wilder, Gordon B., Anderson (Sedimentation Rate of Red Blood Cells: A Simple Office Procedure) 24
Williams, C. L., Logansport (Hyperostosis of the Calvarium) 361
Willison, George W., Evansville (The Heart in Middle Life) 57
Wishard, Elizabeth M. (Intimate Glimpses—William N. Wishard) 319
Wishard, William N., Jr., Indianapolis (Professional Activities of William Niles Wishard) 322

SPECIAL ARTICLES

Abell's, Dr., Comments on Medical Preparedness 44
Aid, Medical, New Plan for Needy Aged, Needy Blind, and for Dependent Children (Sheppard) 625
American Medical Association in Cleveland 389
American Medical Association in Cleveland—Convention Notes 390
American Medical Association, Indiana Physicians Registered at Cleveland Meeting of the 391
American Medical Association Survey on Availability of Physicians 272
Army, Participation of the Medical Department of the, in the 1940-41 Military Training Program (Munly) 156
Attendance at County Medical Society Meetings (Fargher) 89

Cancer Control Month—April, 1941 227
Convention Notes (Ind. State Med. Assoc.) 611
County Medical Society Meetings, Attendance at (Fargher) 89
Court Decision, New, on Emergency Medical Care by Townships (Smith) 396

Deaths of Indiana Physicians in 1940 93
Defense, National Nutrition Conference for, Report of (Baker) 393
District Meetings—Programs 267 and 345
Defense, Recommendations for Public School Programs of Health and Physical Education for National (Stafford) 397
Drug Program, The Part of Physicians and Dentists in the Dangerous (Ferree-Schneider) 695

Everything Counts (Barker) 154
Exhibit Shows Activities of Lake County Medical Society (Waterson) 624

Fair, State (Sage) 620

Hearing, Hard of—Regulations and Suggestions Regarding Compliance with Provisions of Recent Legislation Providing for Tests for the 528
History, Know Your Medical (Kiser) 623

Infantile Paralysis, National Foundation for 41
Indigent, Some Observations on Medical Care of the 42
Indiana Physicians on Duty with Uncle Sam 404 and 578
Indiana Physicians Registered at A.M.A. meeting 391
Indiana State Medical Association — Preliminary Program 436
Indiana State Medical Association—Complete Program 467

Lake County Medical Society, Attractive Exhibit Shows Activities of the (Waterson) 624
Legislation Providing for Tests for Children of School Age, and Aid to the Hard of Hearing—Regulations and Suggestions Regarding Compliance with the Provisions of Recent 528
Legislative Matters—Final Report (Committee Report) 221

May Day—Child Health Day, 1941 227
Medical and Hospital Care of Old-Age Pensioners Under New Law (Smith) 270
Medical Care by Townships, New Court Decision on Emergency (Smith) 396
Medical Department of the Army in the 1940-41 Military Training Program, Participation of the (Munly) 156
Membership Roster for 1941 699
Memento of Old Constitution Elm Presented to Indiana State Medical Association 622
Money, Know Your 344

National Foundation for Infantile Paralysis, Inc. 41
Nursing Demonstration, Maternity, Report of Services in the State of Indiana (Mettel) 572
Nutrition Conference for Defense, Report of (Baker) 393
N.Y.A. Health Program (Garber) 339

Pensioners, Old Age, Medical and Hospital Care Under the New Law (Smith) 270
Physicians, Availability of, American Medical Association Survey of 272
Poliomyelitis 434
Preparedness, Dr. Abell's Comments on Medical 44

President's Page: 40, 85, 164, 220, 269, 338, 388, 433, 527, 621, 694
Program, Drug, Physicians and Dentists in the (Ferree-Schneider) 695
Programs of Health and Physical Education for National Defense, Recommendations for Public School (Stafford) 397

Regulations and Suggestions Regarding Compliance with Provisions of Recent Legislation Providing for Tests for Children of School Age, and Aid to Hard of Hearing 528
Roster, Membership for 1941 699

Sampson, Paul O., Food and Health Expert (Rice) 340
Secretaries' Conference Program 39

Tax, Your Federal Income (Smith) 86
Townships, New Court Decision on Emergency Medical Care by (Smith) 396
Twenty-Five Years Ago 38, 88, 163, 272, 343, 399, 437, 529, 627, 696

Under the Capitol Dome:
Admissions at State Hospitals 45
Artificial Leg Project 698
Assistance, Public Welfare 273
Birth Certificates 400
Central State Hospital, Needs of 45
Crum "Etherator" Decision 697
Diphtheria Outbreak 698
Examinations, Medical, for State Farm Residents 530
Ferree and Poole Attend Conference 573
Highways, Slaughter on 529
Johnson, Dr. Paul, Superintendent of Richmond State Hospital 45
Laboratory of Indiana State Board of Health 628
Licenses Issued, State Medical 573
Licenses, Naturopath, Revoked 573
Licenses Revoked 440
Malaria Control Program 698
Need for Accommodations for Criminally Insane 165
Prison, Annual Reports of State 342
Public Welfare Assistance 273
Sanitary Problems 439
Slaughter on the Highways 529
State Board Officers 165
State Hospitals, Admissions at 45
Statistics—1940 228
Tularemia Season 698
Winebrenner, District Health Officer 440
Voice of Medicine:
Doctor's Doctor (Austin) 438
Premarital Blood Examinations 438
Wishard, William Niles—Memorial 317
Wishard the Man (Townsend) 317
Intimate Glimpses (Wishard) 319
Professional Activities (Wishard) 322
Our Professional Associate (Hamer-Mertz) 326
Dr. Wishard and the Indiana State Board of Health (Rice) 328
Dr Wishard and the I.U. Medical School (Bryan) 329
Dr. William Niles Wishard (McCormack) 329
Dr. Wishard Memorial Meeting, Indianapolis Medical Society:
Dr. Wishard and the City Hospital (Myers) 330
Dr. Wishard and His Pastor (Frantz) 332
Dr. Wishard and His Attorney (Noel) 333
Dr. Wishard's Work in Medical Education and Urology (Gatch) 334
Dr. Wishard and the Bureau of Publicity (Hendricks) 335

DEATHS

Adams, Harry A., Indianapolis 166
Anderson, Richard A., Vincennes 166
Applegate, Charles R., Newcastle 401
AuBuchon, Flavian P., Forest 275
Austin, Rayburn C., Bloomington 574

Barger, John G., Indianapolis 531
Barlow, Roscoe L., Gary 574
Beaman, Zera H., North Manchester 90
Bloom, Harvey G., Oxford 709
Bockoven, Clement H., Verona, O. 90
Boram, Eilan V., Muncie 629
Burgin, John M., Bedford 46
Burlington, J. Roy, Attica 166

Catterson, William E., Noblesville 275
Chenoweth, Oscar U., Lafayette 401
Cleveland, Walter R., Evansville 401
Clubb, John W., Blanford 531
Combs, George W., Indianapolis 166
Conway, Robert E., Indianapolis 46
Cook, Andrew J., Flora 46
Cornell, J. Frank, Galveston 574
Cowan, James C., New Haven 275
Craig, James A., Gary 440
Cromer, Leonard G., Union City 346

Davis, Albert T., Marion 401
Dennis, Fred A., Crawfordsville 401
Doll, Frank R., Whiting 531
Dowd, Frank T., Indianapolis 166
Downing, John F., Muncie 709
Duffin, Charles E., Richmond 46
Dunlevy, George C., Evansville 275

Eley, Thomas C., Plymouth 230
Ewing, Ulysses Grant, Franklin 90

Fair, Charles S., Fort Wayne 230
Fichman, J. Louis, Indianapolis 275
Fleming, John C., Elkhart 401
Franz, Ernest, Berne 440
Frazier, Sherman S., Angola 440

Garrison, Harry Morton, Evansville 574
Gilman, Lawrence Hugh, Indianapolis 166
Green, Nellie E., Fowler 629

Haley, Laura J. C., Indianapolis 401
Hamilton, Curtis C., Linton 629
Hansell, George H., Rising Sun 166
Harrod, Morse, Fort Wayne 401
Harter, Harry T., Newtonville 709
Hartloff, Charles Wm., Evansville 531
Hatfield, Isaac N., Bluffton 709
Hays, Thomas A., Burns City 46
Hunt, Estie Eri, Pendleton 346
Huron, Willis B., Tipton 229

James, John H., Anderson 531
Jennings, William Lee, Indianapolis 531
Jones, Harry Orville, Berne 229
Jones, John H., Seymour 401

Kaufman, Anna G., Goshen 46
Keeney, Stanfield H., Indianapolis 90
Kenney, Charles B., Highland 275
Kimball, George W., LaPorte 229
Knoefel, August F., Terre Haute 574
Kresler, Arthur R., Rensselaer 346

Lambert, John A., Indianapolis 346
Lind, Henry G., Edinburg 166
Luck, Fernande H., Indianapolis 275

Mackey, Dwight, Hobart 531
Martin, William H., Kokomo 90
Maxwell, John H., Martinsville 166
Mayfield, Ambrose M., Montmorenci 440
McBride, William A., Indianapolis 46

McClary, Daniel V., Evansville ---- 166
McCully, Charles H., Logansport ---- 401
Millstone, Israel S., Gary ---- 275
Mock, Albert D., Marion ---- 709
Moore, Emma W., Kokomo ---- 629
Moorhead, James J., Terre Haute ---- 275
Morgan, Robert R., Boswell ---- 90
Murphy, John S., Sullivan ---- 531

Nussel, Frederick, Brazil ---- 166

Oberlin, Thomas William, Hammond ---- 229
O'Brien, William M., Greencastle ---- 229

Peck, J. L. Webster, Frankton ---- 440
Perry, George L., Portland ---- 275
Phares, John W., Evansville ---- 346
Pyke, Furman L., Lafayette ---- 90

Rainier, Alfred P., Remington ---- 346
Recher, Lawson H., Morocco ---- 709
Reed, Caroline, Veedersburg ---- 275
Reeve, Joseph L., Edwardsport ---- 275
Reid, Franklin P., Indianapolis ---- 90
Reifeis, Carl C., Indianapolis ---- 166

Savage, Claude A., Fort Wayne ---- 709
Schillinger, Richard, Richmond ---- 46
Schuck, John H., Colfax ---- 531
Sharrer, John C., Francesville ---- 531
Sherwood, Walter C., Mitchell ---- 401
Shook, Nelson J., Corunna ---- 346
Short, Darwin M., Owensville ---- 229
Spitler, Charles E., Saratoga ---- 166
Sprague, John S., Indianapolis ---- 275
Stephenson, Thomas J., Anderson ---- 709
Strong, Lee E., Indianapolis ---- 229
Sugg, Henry H., Mount Vernon ---- 229
Swope, Raymond E., Rockville ---- 346

Talmage, John B., Lawrenceburg ---- 46
Taylor, John M., Indianapolis ---- 275
Throckmorton, Ora E., West Lafayette ---- 709
Turner, James A., Nashville ---- 230

Wade, Frank C., Howe ---- 46
Wadsworth, William W., Muncie ---- 230
Walden, William M., Newburgh ---- 531
White, Hugh J., Hammond ---- 346
Williamson, William R., Ft. Wayne ---- 90
Wishard, William N., Indianapolis ---- 91

Ziliak, Alois L., Princeton ---- 90

BOOKS

Received and Reviewed

Aged, The Care of the (Geriatrics) (Thewlis) C. V. Mosby Co., 1941 ---- Dec. xxv
Anatomy of the Head and Neck, Surgical (Barnhill-Mellinger). Williams and Wilkins Co., 1940 ---- (Feb.) xxiv; (June) r-xxii

Body Mechanics (Goldthwaite). J. B. Lippincott Co., 1941 ---- (Sept) xxx

Cancer of the Face and Mouth (Blair-Moore-Byars). C. V. Mosby Co., 1941 ---- Dec. xxiv
Cardiac Classics (Willius-Keys). C. V. Mosby Co., 1941 ---- (June) xxiv; (Sept.) xxx
Cardiac Clinics (Willius). C. V. Mosby Co., 1941 ---- (Oct.) xxiii
Council on Pharmacy and Chemistry of the A.M.A., Annual Reprint of Reports. American Med. Assn., 1941 ---- (Sept.) xxxiv
Chemistry, Synopsis of Applied Pathological (Andes). C. V. Mosby Co., 1941 ---- (Oct) xxiii
Chemistry, Manual of Clinical (Reiner). Interscience Pub., 1941 ---- (Mar.) xxii
Communicable Diseases, Handbook of (Top). C. V. Mosby Co., 1941 ---- Dec. xxv
Cretin, From, to Genius (Voronoff). Alliance Book Corp., 1941. ---- Dec. xxv
Dermatology, Essentials of (Tobias). J. B. Lippincott Co., 1941 ---- (June) xxii; (Aug.) xxiii
Dermatology, Introduction to (Sutton-Sutton). C. V. Mosby Co., 1941 ---- (Apr.) xxiv and Dec. xxv
Diagnosis, Manual of Physical (Lewison-Freilich-Coe). Year Book Publishers, 1941 ---- (Mar.) xxii; (Oct.) xxiv
Dictionary, American Illustrated Medical (Dorland). W. B. Saunders Co., 1941 ---- (Aug.) xxiii
Diseases of Women (Crossen-Crossen). C. V. Mosby Co., 1941 ---- Dec. xxv
Doctor and the Difficult Child (Moodie). Commonwealth Fund, 1940 ---- (Oct.) xxiv; 51

Endocrinology, Essentials of (Grollman). J. B. Lippincott Co., 1941 ---- 395

First Aid in Emergencies (Eliason). J. B. Lippincott Co., 1941 ---- 286
Foreign Bodies Left in the Abdomen (Crossen-Crossen). C. V. Mosby Co. ---- 51

Geriatrics—The Care of the Aged (Thewlis). C. V. Mosby Co., 1941 ---- Dec. xxv

Handbook of Communicable Diseases (Top). C. V. Mosby Co., 1941 ---- Dec. xxv
Health and Longevity (Baird). Christopher Pub. House, 1941 ---- (Nov.) xxvii
Heart and Arteries, Synopsis of Diseases of (Hermann). C. V. Mosby Co., 1941 ---- 395
Hemorrhagic Diseases (Nygaard). C. V. Mosby Co., 1941 ---- (Apr.) xxiv
Immunity Against Animal Parasites (Culbertson) Columbia University Press, 1941 ---- Dec. xxiv
Infant, The Premature (Hess-Lundeen). J. B. Lippincott Co., 1941 ---- Dec. xxv
Infant Nutrition (Marriott). C. V. Mosby Co., 1941 ---- Dec. xxv
Infantile Paralysis, Treatment of, in the Acute Stage (Kenny). Bruce Publishing Co., 1941 ---- Dec. xxv

Laboratory Technic, Essentials of Applied Medical (Feder-Elliott). Charlotte Medical Press, 1940 (June) xxiv
Living, Effective (Turner-McHose). C. V. Mosby Co., 1941 ---- (Aug.) xxii
Log, The Daily, for Physicians. Colwell Publishing Co. ---- Dec. xxv

Medicine, 1940 Year Book of General (Dick, et al.). Year Book Publishers, 1940 ---- (Aug.) xxiii
Medicine, The March of (N. Y. Academy of Medichine Lectures, 1940). Columbia Univ. Press, 1941 ---- (Aug.) xxii
Medicine, Merchants in (Josephson). Chedney Press, 1941 ---- 286
Medicine, Practice of (Meakins). C. V. Mosby Co., 1940 ---- (Mar.) xxii
Microbes Which Help or Destroy Us (Allen-Holtman-McBee). C. V. Mosby Co., 1941 ---- Dec. xxv
Microbiology, Principles of (Colien-Odegard). C. V. Mosby Co., 1941 ---- (Sept.) xxx
Milk Sickness Caused by White Snakeroot (Mosely). E. L. Moseley and Ohio Acad. of Science, 1941 ---- (June) xxii; (Nov.) xxvii

Necropsy (Halpert). C. V. Mosby Co., 1941 ---- (Sept.) xxx
New and Nonofficial Remedies, 1941. American Medical Association, 1941 ---- (Sept.) xxxiv

Nutrition, The Art and Science of (Hawley-Carden). C. V. Mosby Co., 1941 ____ Dec. xxiv
Nutrition, Infant (Marriott). C. V. Mosby Co., 1941 Dec. xxv
Obstetrics in General Practice (Greenhill). Year Book Publishers, 1940 ____ (Mar.) xxii
Occupational Diseases (Johnstone). W. B. Saunders Co., 1941 ____ Dec. xxv
Ophthalmology, A Treatise on Medicolegal (Snell). C. V. Mosby Co., 1940 ____ (Mar.) xxii
Oral Pathology (Thoma). C. V. Mosby Co. ____ (Sept.) xxxii

Paralysis, The Treatment of Infantile, in the Acute Stage (Kenny). Bruce Pub. Co., 1941 ____ Dec. xxv
Pathology, Functional (Lichtwitz). Grune & Stratton, Inc., 1941 ____ Dec. xxv
Pathology and Immunology, 1940 Year Book (Karsner-Hooker). Year Book Publishers, 1940 ____ (May) xxi; 51
Pediatric Bibliography (Mitchell). Natl. Research Council, 1941 ____ (June) xxii
Pellagra, Clinical (Harris-Harris). C. V. Mosby Co., 1941 ____ (Feb.) xxiv; (May) xxii
Pharmacology, Essentials of, and Materia Medica for Nurses (Gilbert). C. V. Mosby Co., 1941 ____ (Sept.) xxx
Physiology in Modern Medicine, Macleod's (Bard et al.). C. V. Mosby Co., 1941 ____ (Aug.) xxiv; 286
Play for Convalescent Children (Smith). A. S. Barnes, 1941 ____ (Aug.) xxii
Psychiatry, Shock Treatment in (Jessner-Ryan). Grune & Stratton, Inc., 1941 ____ Dec. xxv

Rheumatic Fever in New Haven (Paul). Science Press Printing Co., 1941 ____ Dec. xxv

Sanity, Mask of (Cleckley). C. V. Mosby Co., 1941 ____ (Aug.) xxiv; 286
Shock Treatment in Psychiatry (Jessner-Ryan). Grune & Stratton, Incorporated, 1941 ____ Dec. xxv
Specialities in Medical Practice (Allen-Balfour). Thomas Nelson & Sons, 1940 ____ (May) xxi
Start Today. Guide to Physical Fitness (Crampton). A. S. Barnes Co., 1941 ____ (Aug.) xxii
Sulfanilamide and Related Compounds in General Practice (Spink). Year Book Publishers, 1941 ____ (Oct.) xxiii
Surgery, Essentials of General (Ritchie). C. V. Mosby Co., 1941 ____ (Nov.) xxvii
Surgery, 1940 Year Book of Industrial and Orthopedic (Painter). Year Book Publishers, 1940 ____ (Oct.) xxiii; 51
Surgery, Synopsis of the Principles of (Berman). C. V. Mosby Co., 1941 ____ 395
Surgical Patients, Synopsis of the Preparation and Aftercare of (Ilgenfritz-Penick). C. V. Mosby Co., 1941 ____ Dec. xxiv

Treatment of Infantile Paralysis in the Acute Stage (Kenny) Bruce Publishing Co., 1941 ____ Dec. xxv
Treatment, Methods of (Clendening-Hashinger). C. V. Mosby Co., 1941 ____ (Feb.) xxiv
Tumors, Orbital (Dandy). Oskar Priest, 1941 ____ (Aug.) xxii
Vitamin Therapy in General Practice (Gordon-Sevringhaus). Year Book Publishers, 1940 ____ (Mar.) xxii
War Wounds and Fractures, Treatment of (Trueta). Harper and Brothers, 1940 ____ (Mar.) xxii
Weight Reducer, Complete (Gerlin). Harvest House, 1941 ____ (Sept.) xxx

X-Ray Therapy of Chronic Arthritis (Goldhamer). Radiologic Review Pub. Co., 1941 ____ (Aug.) xxii

Year Book, The 1941, of Public Health (Geiger). Year Book Publishing Co., 1941 ____ Dec. xxiv

SOCIETIES AND INSTITUTIONS

Cincinnati Dermatologic Society Meets in Indianapolis ____ June xxi
Council on Medical Education and Hospitals (Baker) ____ April xxvi
County Society Reports ____ Jan. 51, Feb. 108, Mar. 171, April 234, May 281, June 349, July xxii, Aug. 444, Oct. 579, Nov. 656, Dec. 716
District Meetings and Reports:
Second ____ July xxiv
Fourth ____ 444
Sixth ____ 445
Eighth ____ 445
Ninth ____ 445
Tenth ____ 445, Dec. 718
Eleventh ____ Nov. 656, July xxiv, Dec. 718
Twelfth ____ 282
Thirteenth ____ Jan. xxvi, Dec. 718
Indiana State Board of Health, Bureau of Communicable Diseases: ____ Jan. xxii, Feb. 174, Mar. xxiv, April xxiv, May 286, June xxiv, July xxvi, Aug. xxii, Sept. xxx, Oct. xxiii, Nov. xli, Dec. xxiv
Indiana State Medical Association:
Anti-Tuberculosis Committee ____ 285
Bureau of Publicity ____ 280, 354, July xxiv, 537
Convention Program and Committee Reports ____ 467
Council, Report of First Meeting ____ 632
Council, Report of Second Meeting ____ 633
Executive Committee: ____ Jan. 55, Feb. 170, May 278, June 351, Aug. 445, Sept. 537, Nov. 654, Dec. 713
General Meetings, Indianapolis Session ____ 653
House of Delegates, Indianapolis Session 634 and 642
Section on Anesthesia ____ 653
Section on Medicine ____ 653
Section on Ophthalmology and Otolaryngology ____ 653
Section on Surgery ____ 653
M-Day Committee ____ 283
Woman's Auxiliary to the Indiana State Medical Association: ____ Jan. xxii, Feb. xxi, Mar. 174, April xxii, May 284, June xxi, Sept. 537, Oct. 580, Nov. 657, Dec. 719

MISCELLANEOUS

News Notes ____ 47, 94, 167, 230, 276, 346, 402, 441, 532, 574, 630, 709
Indiana University News Notes ____ Jan. 49, Feb. 97, Mar. 169, April 230, May 278, June 348, July xxi, Aug. 443, Sept. 532, Oct. 577, Dec. 712

(Continued from page 719)

State Medical Association June 1941, p. 340.

VII. Nutrition:
- A. National Nutrition Conference for Defense, *Journal A.M.A.*, June 7, 1941, p. 2598. *Journal A.M.A.* June 28, 1941, p. 2854.
- B. The Vitamin Era, Health Education Department, *A.M.A.*, *Hygeia*, *The Bulletin*.
- C. Balancing the Diet, *New York Times Magazine* June 15, 1941, and *Hygeia*.
- D. Diet Fads, *Bulletin* and *Hygeia*. Current and old issues.

VIII. Coordination of American Medical Resources for Defense, *Medical Economics*, August, 1941, p. 34.

IX. Procurement and Assignment Agency, *Journal A.M.A.* June 21, 1941, p. 2783.

X. Group Practice, *Journal A.M.A.* June 28, 1941, p. 2923.

XI. Medical Preparedness, Current issues of *Journal A.M.A.*

XII. Hospital Standards, Hospital Facilities, and Hospital Medicine in United States, Library A.M.A.

XIII. Current articles in *Hygeia* and *The Bulletin*.

SOCIAL ACTIVITIES

I. Guest teas with such programs as indicated under Public Relations, or book reviews. Suggested Books:
1. *American Doctors of Destiny*—Frank J. Jirka.
2. *The Waiting Room*—Helen Irving Oehler.
3. *Faiths that Healed*—Ralph H. Major, M.D.
4. *The Medical Career*—Harvey Cushing, M.D.
5. *The Life of Sir William Osler*—Harvey Cushing, M.D.
6. *Ten Years in the Congo*—W. E. Davis.
7. *A Man Who Found a Country*—A. Hakashian, M.D.
8. *The Wind of Circumstances*—Harold Reardon, M.D.
9. *I Married Adventure*—Osa Johnson.
10. *This Is My China*—Madame Chiang KiaChek.
11. *The Wabash*—William E. Wilson.
12. *Born in Paradise*—Armin Von Tempski.
13. *Pioneers of American Medicine*—paintings (3) by Dean Cornwall—George A. Kellogg.

II. Bridge.

III. Sewing for any philanthropic project with a social tea hour.

IV. Musical.

Allen County Auxiliary members began their year's activities with a supper at the Irene Byron Sanatorium, the subject being "Coordination of

(Continued on page xxii)

PROFESSIONAL PROTECTION

A DOCTOR SAYS:

"Believe me when I say this was a nice Christmas present and lifted quite a worry off my mind. It was certainly a hard, long case to fight. The whole profession here feels that it was a victory for all."

THE MEDICAL PROTECTIVE COMPANY OF FORT WAYNE, INDIANA

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

INSURANCE

For ethical practitioners exclusively
(56,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	For $10.00 per year
$5,000.00 ACCIDENTAL DEATH $25.00 weekly indemnity, accident and sickness	For $32.00 per year
$10,000.00 ACCIDENTAL DEATH $50.00 weekly indemnity, accident and sickness	For $64.00 per year
$15,000.00 ACCIDENTAL DEATH $75.00 weekly indemnity, accident and sickness	For $96.00 per year

39 years under the same management

$2,000,000.00 INVESTED ASSETS
$10,000,000.00 PAID FOR CLAIMS

$200,000 deposited with State of Nebraska for protection of our members

Disability need not be incurred in line of duty—benefits from the beginning day of disability.

Send for applications, Doctor, to

400 First National Bank Building Omaha, Nebraska

(Continued from page xxi)

Welfare Activities and Medical Practice." On October fourteenth the Auxiliary entertained most successfully with a guest tea in the Wolf and Dessauer auditorium for representatives of all the service clubs, county Parent-Teacher Association groups, welfare organizations, nurses in training, and various study groups. Four hundred sixty attended this meeting. "Diet and Physical Fitness" was the title of the illustrated lecture presented by Dr. Clifford Barborka of Chicago. Mrs. Arnold H. Duemling, president of the County Auxiliary and president-elect of the State Auxiliary, is active in community affairs. She has been a member of the Board of Directors of the Fort Wayne Art School and Museum, is a member of the Executive Board of the Community Concert Association, and is a member of the Board of Directors of the Civic Symphony.

On September nineteenth the Cass County Medical Society Auxiliary held a dinner meeting. Plans for the Eleventh District meeting, held in Logansport in October, were formulated.

At the opening meeting of the Floyd County Auxiliary on September twelfth "Nutrition" was the subject of discussion. The group decided to sew each Friday afternoon, at 1:30, in the Red Cross Headquarters.

On October twenty-first a musical tea was given at the home of Mrs. Harry Kerr in honor of new and prospective members of the Marion County Auxiliary. Special guests were the wives of physicians stationed at the Billings Hospital and Fort Harrison.

The Porter County Auxiliary met at a dinner on October third. A report was given on activities at the recent state meeting and was followed by a talk on "Welfare Work."

"Socialized Medicine" was the topic discussed at the luncheon meeting of the Vanderburgh County Auxiliary on September thirtieth.

At the first meeting of the Vigo County Auxiliary in October, the occupational therapy supervisor gave her report. Plans are under way to make it possible for patients to continue this work after they leave the hospital. The Philanthropic Bridge, an annual event, was held October seventeenth, one party in the afternoon and one at night. This is their only money-making project, and the proceeds are used to pay the supervisor's salary. Two of the auxiliary members are active in civic affairs. Mrs. Leon Blum is president of the Public Health Nursing Association, and Mrs. John Connelly is president of the Founders of the Children's Theater in Terre Haute.

ABSTRACT: SAY CAUSE OF FEVER BLISTERS AND "CANKER SORES" IS SAME

The virus of herpes simplex is chiefly responsible for acute infectious gingivostomatitis, a condition involving inflammation of the membrane lining of the mouth, often called canker sores, T. F. McNair Scott, M.D.; Alex J. Steigman, M.D., and John H. Convey, Philadelphia, report in *The Journal of the American Medical Association* for September 20.

"Inflammation of the mouth," the authors say, "is a relatively common clinical condition among children. . . . In a number of cases the stomatitis is due to some known condition such as trauma, avitaminosis, metallic poisons, thrush, certain uncommon bacterial infections and that which accompanies the exanthems. However, there remains a clinically common group about the cause of which there has been considerable doubt.

"Uncertainty as to the etiology of this condition has led to a variety of names, over thirty synonyms in all being applied to it. . . ."

The findings of the three men are based on studies of 33 patients actually suffering from or having just recovered from acute stomatitis. The virus of herpes simplex was isolated from the mouths of patients and herpes neutralizing antibodies developed in their blood during convalescence, the authors say.

"The relative insusceptibility of very young infants to this variety of oral disease," they say, "is interesting and is now being investigated. Since there seems now to be little doubt that this stomatitis is the main clinical manifestation of primary infection with the virus of herpes simplex, a rearrangement of the usual classification of stomatitis is perhaps indicated."

They suggest that the disease be termed "herpetic stomatitis" and subdivide it into primary and recurrent groups.

The primary disease, the authors explain, appears to be an acute systemic infection characterized by fever, irritability, soreness of the mouth, red swollen gums, foul mouth odor and a regional swelling of the lymph glands. As with other infections, the severity of the disease varies in different patients. The ages of the patients studied by them ranged from 12 months to 12 years; in addition there was 1 adult of 24 years. Forty per cent of the cases occurred under 3 years of age, 70 per cent under 6 years of age.

"The primary disease is the common stomatitis of young children and is usually accompanied by considerable constitutional symptoms which do not always parallel the severity of the oral lesions," the three men say. "This occurs in people who have not previously been infected with the herpes virus. The recurrent disease may occur at any age, after a primary infection with herpes, and is analogous to recurrent herpes of the lips and elsewhere. . . ."

Regarding the means by which the infection spreads, the authors say that in the normal course of events the parasite establishes itself widely in the population, since 65 to 90 per cent of adults have herpes neutralizing substances in their blood. The period of invasion must coincide with childhood, since one investigator found only 14 per cent of children under 5 years carrying antibodies, while two others found no antibodies in the blood of 31 out of 42 infants between 6 and 24 months of age.

"Since this is the period during which stomatitis occurs in its greatest frequency," the authors say, "it would seem that stomatitis was a common manifestation of that invasion. Whether at that time the virus is spread widely through the body by way of the blood stream is a point that deserves study, since there is a great diversity of opinion as to whether herpes virus can ever be found in the blood. Once an individual has been infected with the virus, that individual is liable to become a carrier of the virus, although at the same time having a high titer of immune bodies in the blood. . . .

"Those not subject to recurrent herpetic infections are the ones who do not show serum antibodies against herpes. Whether this is a peculiar individual resistance or a fortunate avoidance of intimate exposure is uncertain. However, one of our patients demonstrates that such an adult can become infected in the presence of intimate enough exposure."

For the local Treatment of Acute Anterior Urethritis
(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE*
Wyeth

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae.[1] An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., 23, 201 (March), 1939.

A complete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

RADIUM

RENTED
for the individual case at lowest rates. Instruments loaned.

LEASED
in any quantity of 50 milligrams or more, on a yearly basis. Continuous possession. No investment.

SOLD
in any quantity in latest platinum containers.
RADON in all-gold Implants at $2.50 per millicurie.

For details, address
RADIUM AND RADON CORP.
Marshall Field Annex • Randolph 8855
CHICAGO

The Orthopedic Shoe Selected For Posture
to be an aid to limb and body ailments

Heid assures a most careful shoe fitting as to doctors' prescriptions for type of shoe, last and correction to be attached for ailments.

Stock and Made-to-Measure Shoes

Orthopedic and standard shoes built flexible, resilient or rigid (not the same type for everybody) are featured and fitted by Irvin Heidenreich. Also persons sent in for good, comfortable shoes in regular or odd sizes are fitted at reasonable prices (seldom exceeding ten dollars).

HEID'S HEALTH SHOE
1546 N. ILLINOIS ST. (Sq. East of Meth. Hosp.)

ABSTRACT

TONSILLECTOMY AND POLIOMYELITIS

Further evidence of the possible relationship between tonsil operations and infantile paralysis is contained in a report in *The Journal of the American Medical Association* for September 20 by Carl E. Krill, M.D., Akron, Ohio, and John A. Toomey, M.D., Cleveland, of the tragedy that recently struck a family at Akron.

"The presence of poliomyelitis in epidemic form in various parts of the United States during this summer and fall, the obvious increase in the incidence of the bulbar type of the disease and the suspected association between tonsillectomies and bulbar types of paralysis make the present preliminary report of general interest," the two physicians say.

"Five of six children, aged 11, 9, 8, 7 and 6 years, had a tonsillectomy and adenoidectomy on August 22. The operations were done under general anesthesia and under the strictest of aseptic precautions in a clinic, and the children went home the same day in good condition. Three of the children began to show symptoms of poliomyelitis on September 3. One child probably started to have symptoms on the third and another on the fifth of September. All the symptoms were referred to the gastrointestinal tract—anorexia, nausea and vomiting. Dysarthria and dysphagia developed in 3 of the children on September 6 and in 2 the next day, so that by September 7 all 5 had bulbar poliomyelitis. In 2 there was involvement of the right seventh nerve and in 1 of the left. In 3 there was palatin paralysis. In 1 child there was a lower motor neuron lesion involving muscles of the arms and legs, paralysis being more marked in the upper arms. One child died at 6:30 a. m. and 1 at 3:30 p. m. on September 8; a third died at 11:30 a. m. on September 9. One child appears as though he should get better, but the other is still seriously ill.

"The parents and the child of the family who was not operated on, who is the youngest of the children and 2½ years of age, have had no symptoms of the disease.

"Since the operations were performed under most sterile conditions and surroundings, it is unlikely that the disease was introduced at that time. This leaves two possibilities: (1) Poliomyelitis virus may have been present in the throats of these children at the time of the operation or (2) the virus was introduced after the operation. The time interval between the operations and the onset of symptoms—twelve days—makes one suspect that the virus was not present in the throats when the tonsils and adenoids were removed and that it probably was introduced later. Whether or not the virus is present in the stools of the child and the parents who are asymptomatic remains to be ascertained by further study.

"There have been no cases of poliomyelitis in the neighborhood where this family lives. The only possible epidemiologic connection lies in the fact that from August 28 to September 2 the stricken children played with two other children who had been visiting some neighbors. The visiting children lived directly across the street from a patient who had died of bulbar poliomyelitis in Cleveland City Hospital on Aug. 4, 1941."

INDIANA STATE BOARD OF HEALTH
BUREAU OF COMMUNICABLE DISEASES
Monthly Report, September, 1941

Diseases	*Sept. 1941*	*Aug. 1941*	*July 1941*	*Sept. 1940*	*Sept. 1939*
Tuberculosis, Primary	5	10	27	0	0
Tuberculosis, Active	108	144	161	187	141
Tuberculosis, Arrested	8	10	7	0	0
Chickenpox	16	15	12	43	25
Measles	10	56	180	26	19
Scarlet Fever	50	38	59	86	204
Smallpox	1	3	0	0	5
Typhoid Fever	15	16	13	28	54
Whooping Cough	67	84	80	88	260
Diphtheria	17	19	9	27	67
Influenza	46	18	28	34	24
Pneumonia	43	44	16	31	33
Mumps	8	1	9	18	35
Poliomyelitis	36	35	11	232	12
Meningitis	1	4	2	2	0
Malaria	2	0	3	0	8
Rocky Mt. Spotted Fever	1	4	0	2	3
Undulant Fever	4	2	0	5	3
Dysentery	1	0	0	7	73
Tularemia	2	1	0	2	2

BOOKS
RECEIVED

IMMUNITY AGAINST ANIMAL PARASITES. By James T. Culbertson, Assistant Professor of Bacteriology, College of Physicians and Surgeons, Columbia University, New York. 274 pages. Cloth. Price $3.50. Columbia University Press, Morningside Heights, New York, 1941.

* * * *

THE 1941 YEAR BOOK OF PUBLIC HEALTH. Edited by J. C. Geiger, M.D., Dr.P.H., Director of Public Health, City and County of San Francisco; Clinical Professor of Epidemiology, University of California; Clinical Professor of Preventive Medicine and Public Health, Stanford University School of Medicine. 544 pages. Fabrikoid. Price $3.00. The Year Book Publishers, Inc., Chicago, 1941.

* * * *

SYNOPSIS OF THE PREPARATION AND AFTERCARE OF SURGICAL PATIENTS. By Hugh C. Ilgenfritz, A.B., M.D., Instructor in Surgery, Louisiana State University School of Medicine, New Orleans; and Rawley M. Penick, Jr., Ph.B., M.D., F.A.C.S., Professor of Clinical Surgery, Louisiana State University School of Medicine. 532 pages with 55 illustrations. Fabrikoid. Price $5.00. The C. V. Mosby Company, St. Louis, 1941.

* * * *

THE ART AND SCIENCE OF NUTRITION. A Textbook on the Theory and Application of Nutrition, by Estelle E. Hawley, Ph.D., and Grace Carden, B.S., of the University of Rochester School of Medicine and Dentistry, Rochester, New York. 619 pages with 140 illustrations, including 12 in color. Cloth. Price $3.50. The C. V. Mosby Company, St. Louis, 1941.

* * * *

CANCER OF THE FACE AND MOUTH—Diagnosis, Treatment, and Surgical Repair. By Vilray P. Blair, M.D.; Sherwood Moore, M.D., and Louis T. Byars, M.D., St. Louis. 599 pages. Illustrated with 260 figures and 64 plates on operative procedures. Cloth. Price $10.00. The C. V. Mosby Company, St. Louis, 1941.

IN12-41

DEPENDABLE PRODUCTS for PHYSICIANS

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals, Tablets, Lozenges, Ampoules, Capsules, Ointments, Etc. Guaranteed reliable potency. Our products are laboratory controlled.

Zemmer

Write for Literature
Chemists to the Medical Profession.

The Zemmer Company
Oakland Station, Pittsburgh, Pa.

THE PREMATURE INFANT—Its Medical and Nursing Care. By Julius H. Hess, M.D., Professor and Head of the Department of Pediatrics, University of Illinois College of Medicine; and Evelyn C. Lundeen, R.N., Supervisor, Premature Infant Station, Sarah Morris Hospital, Chicago. 309 pages with 74 illustrations. Cloth. Price $3.50. J. B. Lippincott Company, Philadelphia, 1941.

* * * *

MICROBES WHICH HELP OR DESTROY US. By Paul W. Allen, Ph.D., Professor of Bacteriology and Head of the Department, University of Tennessee; D. Frank Holtman, Ph.D., Associate Professor of Bacteriology, University of Tennessee; and Louise Allen McBee, M.S., Formerly Assistant in Bacteriology, University of Tennessee. 540 pages with 102 text illustrations and 13 color plates. Cloth. Price $3.50. The C. V. Mosby Company, St. Louis, 1941

* * * *

HANDBOOK OF COMMUNICABLE DISEASES. By Franklin H. Top, A.B., M.D., M.P.H., Director, Division of Communicable Diseases and Epidemiology, Herman Kiefer Hospital and Detroit Department of Health, and special lecturer in Communicable Diseases and Epidemiology, University of Michigan. 682 pages with 73 text illustrations and 10 color plates. Cloth. Price $7.50. The C. V. Mosby Company, St. Louis, 1941.

* * * *

SHOCK TREATMENT IN PSYCHIATRY. A Manual by Lucie Jessner, M.D., Ph.D., Resident Psychiatrist, Baldpate, Georgetown, Massachusetts, Graduate Assistant in Psychiatry, Massachusetts General Hospital, Assistant in Psychiatry, Beth-Israel Hospital, Boston; and V. Gerard Ryan, M.D., Associate Psychiatrist, Elmcrest Manor, Portland, Connecticut, Assistant in Psychiatry, Harvard Medical School, Boston. 149 pages. Cloth. Price $3.50. Grune & Stratton, Inc., New York, 1941.

* * * *

THE CARE OF THE AGED (GERIATRICS). By Malford W. Thewlis, M.D., Attending Specialist, General Medicine, United States Public Health Hospitals, New York City; Attending Physician, South County Hospital, Wakefield, Rhode Island; Special Consultant, Rhode Island Department of Public Health. Third edition, entirely rewritten. 579 pages, with 50 illustrations. Cloth. Price $6.00. The C. V. Mosby Company, St. Louis, 1941.

* * * *

OCCUPATIONAL DISEASES. Diagnosis, Medicolegal Aspects and Treatment. By Rutherford T. Johnstone, A.B., M.D., Director of the Department of Occupational Diseases, Golden State Hospital, Los Angeles, California; Formerly Assistant Professor of Medicine, University of Pittsburgh School of Medicine. 558 pages, with 132 illustrations. Cloth. Price $7.50. W. B. Saunders Company, Philadelphia, 1941.

* * * *

THE TREATMENT OF INFANTILE PARALYSIS IN THE ACUTE STAGE By Sister Elizabeth Kenny, of Australia, originator of the Kenny Method for the treatment of infantile paralysis, whose system is used in the Minneapolis General Hospital and The University Hospital at Minneapolis, Minnesota, and who has established Kenny Clinics in England and Australia. 285 pages, with 63 illustrations. Cloth. Price $3.50. Bruce Publishing Company, St. Paul, Minnesota, 1941.

* * * *

FUNCTIONAL PATHOLOGY. By Leopold Lichtwitz, M.D., Chief of the Medical Division of the Montefiore Hospital, and Clinical Professor of Medicine, Columbia University, New York. 567 pages, with 157 illustrations, charts and tables. Cloth. Price $8.75. Grune & Stratton, Inc., New York City, 1941.

* * * *

RHEUMATIC FEVER IN NEW HAVEN. Edited by John R. Paul, M.D., Professor of Preventive Medicine, Yale University School of Medicine, New Haven, Connecticut. 176 pages, with 19 tables and 45 charts. Paper. Price $1.00. The Science Press Printing Company, Lancaster, Pennsylvania, 1941.

FROM CRETIN TO GENIUS. By Doctor Serge Voronoff, who in 1921 became the Director of the Experimental Surgery Laboratory at the College de France. 281 pages. Cloth. Price $2.75. Alliance Book Corporation, New York, 1941.

* * * *

DISEASES OF WOMEN. Edited by Harry Sturgeon Crossen, M.D., F.A.C.S., Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; and Robert James Crossen, A.B., M.D., Assistant Professor of Clinical Gynecology and Obstetrics, Washington University School of Medicine, St. Louis. 948 pages, with 1,127 engravings, including 45 in color. Ninth edition, entirely revised and reset. Cloth. Price $12.50. The C. V. Mosby Company, St. Louis, 1941.

* * * *

INFANT NUTRITION. A Textbook of Infant Feeding for Students and Practitioners of Medicine. By Williams McKim Marriott, B.S., M.D., Late Professor of Pediatrics, Washington University School of Medicine, Physician in Chief, St. Louis Children's Hospital, St. Louis, Missouri; revised by P. C. Jeans, A.B., M.D., Professor of Pediatrics, College of Medicine, State University of Iowa, Iowa City. Third edition. 475 pages, with 31 illustrations. Cloth. Price $5.50. The C. V. Mosby Company, St. Louis, 1941.

* * * *

REVIEWED

THE 1942 DAILY LOG FOR PHYSICIANS. Colwell Publishing Company, Champaign, Illinois. Price $6.00, postpaid.

THE DAILY LOG FOR PHYSICIANS, with its very complete forms for the accounting of income and expense items, as well as provisions for the many miscellaneous records a physician must make during his daily practice should, in our opinion, be a most valuable asset to any medical man. A single page devoted to every day of the year and a summary page at the end of every month, with provisions for carrying over the totals from the previous month, provide an easy and comprehensive bookkeeping system in a single volume. Memorandum sheets on which special appointments, surgical operations, obstetrics, narcotics dispensed, etc., are recorded, afford an orderly manner of keeping in one book the daily doings of the busy physician. With the increasing burden of "keeping the records straight" for tax purposes, physicians should find this LOG an indispensable aid, and to all those who are looking for an easy, practical and accurate way of recording the daily routine and providing for permanent records which can be kept from year to year, we recommend an investigation of THE DAILY LOG.

T. H.

AN INTRODUCTION TO DERMATOLOGY. By Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S. (Edin.), Emeritus Professor of Dermatology, University of Kansas School of Medicine; and Richard L. Sutton, Jr., A.M., M.D., L.R.C.P. (Edin.), Assistant Professor of Dermatology, University of Kansas School of Medicine. Fourth Edition. 904 pages, with 723 illustrations. Cloth. Price $9.00. C. V Mosby Company, St. Louis, 1941.

This condensation of the tenth edition of the author's book on "Diseases of the Skin" makes available for students a very concise and complete text of slightly more than half the number of pages. Physically, the text is well made of the best quality material. The print is neat and compact, and the illustrations are well selected, and are more numerous than usual in this size text.

Pathology is stressed, and excellent microscopic sections are pictured.

Thirty-five pages of bibliography at the end of the book, arranged in the sequence of the chapters, gives a "key" to larger fields than most students could find time to explore. This part is the most valuable portion, and, with the aid of a good library, makes the text most complete.

T.D.R.

You've saved *two million lives* ...so far!

SINCE 1907, when the fight began, the tuberculosis death rate has been reduced 75%! — by people like you buying Christmas Seals. More than two million lives have been saved.

But the battle against this scourge must go on. *Tuberculosis still kills more people between the ages of 15 and 45 than any other disease.*

Yet it is possible to eliminate completely this enemy of mankind. Our weapons are Research, Education, Prevention, Control—made possible by your use of Christmas Seals. Get them today.

Buy
CHRISTMAS SEALS

The National, State and Local Tuberculosis Associations in the United States

Indiana state medical association v.34 1941 26831

v.34 1941 26831
Indiana state medical association
journal

DATE	ISSUED TO

Return this book on or before the last date stamped below

Apr 17 47

Library Bureau Cat. no. 1174